

TO AMEND THE UNITED STATES GRAIN STANDARDS ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON RURAL DEVELOPMENT,
OVERSIGHT, AND INVESTIGATIONS

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY
UNITED STATES SENATE

NINETY-NINTH CONGRESS

SECOND SESSION

ON

S. 1121

A BILL TO AMEND THE UNITED STATES GRAIN STANDARDS ACT TO
ENCOURAGE FOREIGN AGRICULTURAL TRADE BY IMPROVING THE
QUALITY OF GRAIN SHIPPED FROM U.S. EXPORT ELEVATOR
FACILITIES

APRIL 24, 1986

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CONTENTS

Andrews, Hon. Mark, a U.S. Senator from North Dakota, opening statement...	Page 1
Zorinsky, Hon. Edward, a U.S. Senator from Nebraska	2

CHRONOLOGICAL LIST OF WITNESSES

Abdnor, Hon. James, a U.S. Senator from South Dakota.....	4
Evans, Hon. Cooper, a Representative in Congress from the Third District of Iowa	7
Gilles, Dr. Kenneth A., Administrator, Federal Grain Inspection Service, U.S. Department of Agriculture.....	11
Ottem, Charles, president, National Barley Council, and director, North Dakota Barley Council, Osnabrock, ND	69
Friehe, Erv, chairman, Nebraska Wheat Board, McCook, NE, and Dan McGuire, executive director	71
Konzak, Richard, chairman, North Dakota Farm Bureau Commodity Committee, Devils Lake, ND.....	77
Allen, William R., Jr., executive vice president and general manager, Union Equity Co-Operative Exchange, Enid, OK, representing the National Grain Trade Council.....	79
Cotter, William Jerry, Corpus Christi, TX, representing the National Grain & Feed Association.....	81
Laserson, Myron, president of North American Export Grain Association, and executive vice president of World Grain Division, Continental Grain Co., New York, NY, representing North American Export Grain Association	88
Mennel, Donald M., chairman, Mennel Milling Co., Fostoria, OH, representing Millers' National Federation	91
Watson, Cecil, Cavalier, ND, representing U.S. Wheat Associates and North Dakota State Wheat Commission.....	94

APPENDIX

Heflin, Hon. Howell, a U.S. Senator from Alabama, statement.....	99
Evans, Hon. Cooper, a U.S. Representative in Congress from the Third District of Iowa, material submitted by.....	100
McGuire, Dan, director, Nebraska Wheat Development, Utilization and Marketing Board, statement with attachment	103
Konzak, Richard, chairman, North Dakota Farm Bureau Commodity Committee, Devils Lake, ND, statement.....	113
Allen, William R., Jr., executive vice president and general manager, Union Equity Co-Operative Exchange, representing the National Grain Trade Council, statement	116
Mennel, Donald, chairman, Mennel Milling Co., Fostoria, OH, representing Millers' National Federation, statement	121
Frazier, Charles L., director, Washington office, National Farmers Organizations, statement	123
American Farm Bureau Federation, statement.....	124
Watson, Cecil, board of directors, U.S. Wheat Associates, statement.....	126
American Soybean Association, statement	128
Cotter, William J., grain grades and weights committee, National Grain and Feed Association, statement.....	131
Laserson, Myron R., president, North American Export Grain Association, statement	136
Datt, John C., executive director, American Farm Bureau Federation, statement.....	137
Legislation under consideration:	
S. 1121, reprint.....	139
Report on S. 1121 from the Department of Agriculture in a letter from Secretary Richard Lyng to Senator Helms	141

TO AMEND THE UNITED STATES GRAIN STANDARDS ACT

THURSDAY, APRIL 24, 1986

U.S. SENATE,
SUBCOMMITTEE ON RURAL DEVELOPMENT,
OVERSIGHT, AND INVESTIGATIONS,
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room SR-332, Russell Senate Office Building, Hon. Mark Andrews (chairman of the subcommittee) presiding.

Present: Senators Andrews and Zorinsky.

STATEMENT OF HON. MARK ANDREWS, A U.S. SENATOR FROM NORTH DAKOTA

Senator ANDREWS. The subcommittee will come to order.

This morning we have under consideration S. 1121. By unanimous consent, of course, we will dispense with the reading of the bill.¹

The hearing is called before our Subcommittee on Rural Development, Oversight, and Investigations. We are going to examine the problem of grain inspection, of grain quality before our foreign customers. Some 10 years ago—I am sure with Senator Zorinsky, when you were in the Senate, and I was still over in the House, we put together the Federal Grain Inspection Act to do something about the substandard exports that we had heard about. We continue to hear about them.

You and I have seen it. When we have been in foreign countries, we hear about it from others. We hear about it from farm groups. We have seen articles in a number of nationwide publications, and in order to protect the farmer, and in order to allow the grain trade to “say it like it is,” we have arranged for these hearings on a bill for grain inspection, so that we can find out just what the problem is, what the remedy is, and do something about it instead of just talking about it.

For years, it seems, anybody who wants to get on a soap-box and complain has been doing just that, but complaints do not help our farmers, or our country gain back those export markets.

So today we are going to hear from the Federal Grain Inspection Service, we are going to hear from grain traders, and we are going to hear from farm organizations in an effort to get as many an-

¹ See p. 139 for a reprint of S. 1121.

swers as we possibly can so we can structure this legislation, so it will be the best working law we can possibly get.

Senator Zorinsky, do you have an opening statement?

STATEMENT OF HON. EDWARD ZORINSKY, A U.S. SENATOR FROM NEBRASKA

Senator ZORINSKY. Yes, I do. Mr. Chairman, I support your efforts to improve the quality of our exported grain. I think this action and specifically this hearing are long overdue. As you pointed out previously, you and I have heard these stories many times, and have even seen the physical evidence. This is a good opportunity for people to indicate what they feel the resolution of this problem should be.

As you know, the Food Security Act of 1985 directs the Office of Technology Assessment to conduct a study of U.S. grain export quality standards and grain handling practices, and report the results of the study to the House and Senate Agriculture Committees by December 1, 1986.

While such a study is worthwhile, it should not be used as an excuse for inaction by Congress or this administration. Intense competition in the international marketplace requires immediate attention. According to the Federal Grain Inspection Service, complaints on grain quality filed by foreign purchasers, in 1985, increased by 300 percent over those filed in 1984, and by over 450 percent by those in 1983.

These statistics do not account for the complaints, that out of a sense of futility, were not even registered; nor do they reflect those situations where potential grain purchasers simply took their business elsewhere.

Our farmers are consistently producing grain of the highest quality and unfortunately, the product delivered to the ultimate purchaser has often been degraded along the way, with the reputation and marketability of American farm products suffering accordingly.

The administration's farm policy is based on the premise that lower commodity prices alone will result in increased export sales. The facts have yet to bear this out.

For example, over the past year, the price of a bushel of wheat declined by over 10 percent. During this same period the value of the dollar decreased by 30 percent, and yet, according to the Foreign Agricultural Service, wheat exports are off by 40 percent over the same time period.

It is therefore clear that price is not the sole determining factor in export sales. Product quality, as well as dependability of supply, must also be addressed. It is puzzling that many of the proponents of the administration's free enterprise farm policy argue so strenuously in favor of competitive pricing but do not apply that same thinking to considerations of quality.

As a former businessman, I can assure you that the true spirit of competition in business does not rest on price alone. It is not enough to build a cheaper mousetrap if its quality is so poor that no one will buy it.

The art of salesmanship, not to mention philosophical consistency, demands that American agricultural products compete on the basis of quality as well as price, and that is just good business.

Mr. Chairman, I look forward to the testimony of today's witnesses, and their views on what actions should be taken to improve the quality of U.S. grain exports.

Senator ANDREWS. Thank you very much, Senator. I appreciate that statement. I appreciate your support of our effort.

Let me preface the introduction of our first witness by pointing out that the Government regulation of grain goes back even to 18th century Paris where grain quality was considered important enough for the police of Paris to be involved in enforcement proceedings at times. That is not quite the case nowadays, but perhaps some of us think we might get police powers back into this, if it is necessary, to do the job.

Last year we understand the Federal Grain Inspection Service—and I point this out to my colleague—received a record number of buyer complaints about U.S. grain.

Let's point out that the 1916 Grain Standards Act was subject to three minor amendments prior to 1968. That is not much update; that is not much change. One of the amendments made samplers and shippers liable for complicity in the issuance of false grade certificates, and one of the 1968 changes reflected that grain transportation had shifted from rails to the road, and made interstate grain inspection voluntary, rather than mandatory.

A little over 10 years ago, as we pointed out, we put together the 1976 act because we had received so many complaints that our foreign soybeans and wheat, when unloaded in buyers' ports, had dirt in it, or it was in poor condition, or it was just minimally in line with the U.S. grain standards. I have been in those foreign ports. I have been in foreign ports in South America and Italy, and quite candidly, when you see the grain unloaded from ships coming from the United States, if I took that grain into my local co-op elevator, my neighbors would say, "What in the devil have you been doing, Mark?" It is not consistent; there is not a uniformity to it, that a buyer would like to have, and I understand we have got to work off our frost-damaged grain and we have got to work off our substandard product, and we have got to work off a lot of the rest.

But perhaps we ought to look into in these hearings the possibility of using that substandard grain as feed, here, in the United States, and exporting the top quality grain, getting a price for it, but getting back to that point where we indeed and in fact are the purveyors of quality grain.

Now most of the grain standards we see today are based on 1916 law. We would like to have information from our witnesses today on what kind of updating needs to be done there.

The Federal Grain Inspection Service utilizes grain standards that were established when grain was freighted locally and there was very little international trading as we know it today.

The 1976 law placed all grain inspection under the Federal Grain Inspection Service. It was done in opposition to the administration, and some Members of Congress who felt the law was an overreaction. Yet we did it, and today, we are finding out that we did not do enough. That you and I are going to be probably tarred with the

label that we are overreacting. But we want to get just as much information as we can from these hearings. So what we do will be done based on fact.

The hearing is based in part on the fact that many countries who used to be our customers have turned to our competitors to purchase their grain, and the complaints that we have received from our customers.

Some people maintain that the complaints are solely because of price and they represent efforts by our customers to get a price concession.

This point of view is then supposedly supported by saying that most of the complaints are found to be not valid. But customer dissatisfaction remains.

For example, Japan has recently told us in clear language, that our quality problems are straining the two countries long-term trade relationship.

When Japan sends us Hondas, they make sure that quality is there. If they did not, American drivers would not buy them. If we are going to send soybeans, wheat, and barley to Japan, we have to make sure that that quality is also there.

Let me close by saying just this: This hearing is, as I said earlier, to get information. If the interaction we get this morning is such that we find we need additional information, or if people say they would like to review some of the testimony and come up with further suggestions, I have talked with Senator Zorinsky, and he agrees with me, that we will hold another hearing in 3 or 4 weeks, but we want to nail down a complete record as soon as we can so we can move with this legislation, amend it as it would appear to be amended by whatever is brought out in these hearings.

We hope to get, as I say, as much basic information as we possibly can, but it is time to get off the soapbox, stop complaining about what is going wrong with American farm exports, and do something about it.

Senator ZORINSKY. Mr. Chairman, I ask that a prepared statement by our colleague, Senator Howell Heflin be included in the record.²

Senator ANDREWS. Without objection.

Today we are privileged to hear from one of our colleagues from a farm State, Senator Jim Abdnor, the Senator from South Dakota. Senator, we are glad to have you, would you sit down and grab one of those mikes. We have your prepared testimony. Let me assure you that it will be entirely in the record, and so if you would summarize it, and I know you are pushed for time.

STATEMENT OF HON. JAMES ABDNOR, A U.S. SENATOR FROM SOUTH DAKOTA

Senator ABDNOR. Mr. Chairman, and Senator Zorinsky, as you know, I am very interested in this subject you are discussing today, and I appreciate the opportunity to be able to stop by and give you my support to try to improve our grain trade business.

² See p. 99 for the prepared statement of Senator Heflin.

I guess I used one approach last year on the Agriculture Committee by calling for a study by the Office of Technology, which I think will bring some real benefits to this subject.

I guess probably Senator Andrews, and myself, being two farmers before we came to Congress, probably have a greater interest in this subject. We realize the overall factors in this better than a lot of other Members of Congress. I guess that being in our trade, our business, we know what foreign exports mean, and we know what people are looking for, and we know what clean grain is.

As long as I can remember, Mr. Chairman, there has been a constant controversy concerning U.S. grain quality standards.

It seems that every year we hear horror stories of disgruntled foreign customers, and lost sales due to the poor quality of the grain we sell in export. We also hear how we come up a very poor second in the quality of our grain exports compared with our competitors, particularly the Canadians.

Now we have heard many examples as to how Americans have been and continue to be disadvantaged in the promotion and sale of their products in international markets.

The high value of the dollar, trade barriers, and foreign subsidies, just to mention a few, along with the huge surplus of grain in the world today, make it a buyer's market. A successful sale agreement requires competitive quality as well as price. As you so well stated a few minutes ago, Senator Zorinsky, maybe there is more than just price to this factor of trying to recapture our foreign exports.

Last November, during the consideration of the 1985 farm bill, I did offer an amendment which was designed to ultimately yield recommendations which would promote export grain sales by protecting the quality of grain exported from the United States.

My amendment was passed by the Senate and as a result became a part of the 1985 farm bill. The amendment called upon the Office of Technology and Assessment to complete a study and report back to the Congress on the following points: First, to determine the extent to which our grain quality standards have contributed to the dramatic decline in exports over the last several years; second, to compare our grain standards with those of our international competitors; and third, to determine the effect of any regulated or legislated improvements in grain quality standards on farm prices.

Now the Office of Technology Assessment has agreed to conduct this study and is working on it at the current time. This study will go a long way in answering many of the ageless questions about this Nation's export policies.

I am pleased that the Agriculture Committee is conducting hearings on S. 1121, introduced by Senator Andrews, and others, to gather information from all concerned parties including farmers, elevator operators, and exporters.

The potential impact of changes in grain quality standards on producers, country elevators, terminals, processors, and exporters must be fully explored and understood.

As a farmer myself, I know how important grain quality standards are. I also know how annoying it can be to hear stories of poor quality grain being delivered overseas.

I know that if I deliver poor quality grain to my elevator in Kennebec, SD—that is a town of 370 people, but we do have a sizable grain elevator—that I would receive a discounted price for that grain.

By the same token, however, I know that if I deliver high quality grain to my local elevator, all my care, hard work, and expense should be rewarded by preserving the quality of that grain.

Unfortunately, many farmers, including myself, are not convinced that the high quality of the grain we deliver is preserved. If poor quality grain is being delivered to overseas customers, then farmers, Congress, and the grain industry must take steps to insure that our customers are satisfied.

At a time of fierce competitiveness for global grain markets, U.S. farmers cannot afford to come up the losers in the market contest.

I am concerned that our grain handling standards may be following the same road traveled by the American auto industry, recognizing, too late, the changing preferences and needs of the customer.

I believe the report mandated by my amendment to the 1985 farm bill will be useful as we address this issue, and decide what action we must take.

I might also say I may have made a mistake. It should have been a year instead of 18 months, because the more knowledge we can get in a hurry, the better.

Senator ANDREWS. That is why we are holding these hearings.

Senator ABDNOR. I gathered that. Thank you. Additionally, I commend this committee for providing myself, and the others, with the opportunity to address this important subject. Thank you.

Senator ANDREWS. Senator, I appreciate your statement. Let me point out, in line with one of the things you mentioned, the grain that we deliver to the elevator is different from the grain that they get overseas. It is no secret that the People's Republic of China has complained to the United States about the blending that was done on a couple of cargoes of soybeans.

It seems, Senator, that in the local soybean country, there was a big storm and a lot of water damage this fall, and they bought some water-damaged soybeans for about 90 cents, back at the local elevator. It turned out they blended them with No. 2 soybeans and sold the whole cargo as No. 2, and got some complaints.

I think we on the farm would like to get that kind of a profit, from 90 cents to the \$5.40 or so a bushel. These are the things that have been going on, and that is the purpose of this kind of a hearing.

Senator ABDNOR. I do not know of anyone who understands the problem better and has had to deal with it from the farm level than you, Mr. Chairman, and I commend you for it.

Senator ANDREWS. Thank you, Senator. Senator Zorinsky.

Senator ZORINSKY. I commend Senator Abdnor for having taken an active interest in this issue long before we scheduled these hearings. I certainly intend to continue to work with him to resolve the problems as they exist in the grading of grain, and the product that appears to arrive at foreign ports in a different form than which it leaves our farms.

Senator ABDNOR. Well, thank you very much, Senator Zorinsky. I think by the very virtue of where we all come from, we have all got to work together on this. We are in the breadbasket of America where we have more grain than anyone in the world. They might match us in defense, but they cannot match us in farming. It is a real advantage for this country to have this capability, but we sure owe it to ourselves to see that we benefit by it. One of those benefits is to keep the foreign export markets, and I thank you for giving me the chance to work with you. Thank you very much.

Senator ANDREWS. Thank you, Senator. Don't forget, it is not just for those of us in rural areas. For every billion dollars' worth of farm exports we have, we create about 15,000 jobs off the farm in this country, and that is important in such places as New York and Pennsylvania. So what we are doing here is not just for our own backyard; it is for our whole Nation's economy.

Our next witness is Hon. Cooper Evans, a Representative from the great State of Iowa, and a cosponsor of this type of legislation. Good to have you with us, Congressman.

STATEMENT OF HON. COOPER EVANS, A REPRESENTATIVE IN CONGRESS FROM THE THIRD DISTRICT OF IOWA

Mr. EVANS. Well, thank you, Mr. Chairman, and I too want to commend you for holding these hearings on a subject that is near and dear to my heart, and to hope that both the Senate and the House will proceed with some legislation on this subject this year.

I think it is of tremendous importance, as has been pointed out, that we retain our competitiveness in world markets, and a part of that problem, of course, is grain quality, as both of you have outlined in considerable detail.

I think it is also very important because of the great amount of emotional unrest, if you will, that exists on the farm at the present time on this subject.

You mentioned earlier, I think, that the Farm Journal had some articles on grain quality, and you may recall, that in one of those issues, the Farm Journal said to its readers, that if you, as a reader, are concerned about this issue, please send us something back.

Well, they did, and I have those here this morning to show to you, and I want to assure the Senator I am not going to ask that these be introduced into the record, or anything of that kind.

Senator ANDREWS. We get the idea, Congressman. Around here you do not count your complaints; you weight them.

Mr. EVANS. This is true. But there are some 2,000 there. Some of them were merely form replies; some of them went into considerably more detail. I do have for the record this morning, if I may, a two-page summary of some of the more insightful, I think, remarks and comments that came back with those, that I believe give some clues as to what the farmers at least believe are a part of the problem.³

I would like to read, if I may, one very short one that came back, that I think is very interesting and that you will find is interesting.

³ See p. 100 for the information submitted by Congressman Evans.

It was accompanied by this bag of material here, and it comes from Tennessee, and it says,

Enclosed you will find a ziplocked bag sample of the trash my local elevator was mixing with soybeans tonight off a large trailer and onto a semitruck.

The workers actually scooped mud off the ground and threw in with this junk before it was put on the semi. I saw it all while I was waiting to unload my truck of clean soybeans straight from the field.

You can imagine the chagrin of that farmer, having to sit there and watch this going on.

Well, I have summarized a number of that type of complaints, that I think might be useful to the committee. To move on to the more definitive part of the problem, you have called this meeting to consider a bill, and I have some suggestions for other items that you might want to include in that.

I also want to comment on the subject of the OTA study, since I am a member of the Board of Directors of the Office of Technology Assessment, and I would like to say to you that the Board has speeded up the schedule for that study, and it will be completed in June of this year rather than in December.

This is in part at least because of Gramm-Rudman, and other time constraints on the Office of Technology Assessment, but there will not be a delay until December before some study results are available.

With respect to S. 1121, I would say to the chairman, that I think this is an excellent vehicle from which to start, but that this short bill is not sufficient to truly influence the problem, and I think probably the chairman understands that.

It would be my feeling, having looked at a number of export elevators, and various points in the chain, that there are at the present time virtually no violations of the provisions as included in this bill, and I would hope that the Senate would go considerably beyond this. In that connection, I would like to talk for just a few moments about a bill that I am going to introduce in the House, not with the hope that it will be passed in that form, but I think that it does bring to the attention of those of us in Congress who are concerned about this issue, some problems that need to be addressed, and a possible way of addressing these.

One item included in that bill has to do with the matter of the way the law now permits dockage numbers to be rounded in a manner that overstates the quality of our wheat being exported from this country.

I think it is unconscionable that our law, at this time deliberately says, that rounding shall be in a direction that overstates the quality of grain.

So I would suggest that we give some thought, in both bodies, to including in the Grain Standards Act, something along the lines of this statement.

In establishing standards for grain and procedures for the certification thereof the Administrator may provide for the rounding of numbers relating to condition or quality, but such rounding shall be in a direction to understate the condition rather than overstate the quality of that grain.

Moving to another point that I think we should recognize as a difficulty, I believe that the Administrator of the Federal Grain Inspection Service should have the power to refuse to certify cargoes

if, in the judgment of that Service, that cargo is certain to deteriorate before it reaches its destination. It is clear, at this point, that under certain circumstances, cargoes certified to meet established grades in our standards will deteriorate en route because of a variety of factors.

Senator ANDREWS. Particularly if you have a high moisture count and——

Mr. EVANS. The maximum amount, combined with maximum fines, et cetera.

Senator ANDREWS. The humidity, and the fines——

Mr. EVANS. Absolutely.

Senator ANDREWS [continuing]. That come to one part of the load, and cause that whole load to go——

Mr. EVANS. Absolutely. It seems to me unconscionable that our laws permit us to export under a grain standard certificate, knowing full well that it is not going to meet that standard once it arrives at the destination, and I think that would be a very constructive subject to consider in legislation.

A third area of some interest that I believe should be considered is the fact that a certificate of grade typically applies to a very large quantity of grain. It may be a cargo, or a lot of many thousands of tons, in some instances. At the present time, overseas, that lot is broken down into sublots for sale to end-users. There is a practice in many of these countries of using that certificate of grade for the entire lot, to certify the quality of each of the sublots derived therefrom, which may vary greatly from the average quality of the lot that was certified.

So there are many users receiving purchases of grain, and a certificate coming along saying this is No. 2 wheat, corn, whatever, and clearly, the lot is not.

Particularly, if it comes out of that part of the hold where the fines have concentrated, and things of this kind. So I would suggest that perhaps that could be addressed by putting on that grade certificate statement, words along the lines of: "The official grade designation shown on this document certifies the quality of the total lot of grain at the time it was loaded for export, and does not certify the grade of sublots derived therefrom," or words to that effect.

Foreign material recombination prohibition. This is the subject of your bill, S. 1121, and I am not going to go into that.

I would just say that I was the author of the material that was included in the House version of the farm bill of 1985, which the Senate, in its wisdom, or the conference, in its wisdom, deleted. I can understand the reasons why. I would just say that I think that it would be useful to look again at the stronger statement. I think that the Federal Grain Inspection Service has at least some sympathy for some of the major provisions in that statement that we included in the farm bill on the House side.

I would particularly draw your attention to the matter of moisture content as it relates to blending, and the difficulties that we have been getting into by blending grains of extremely different moisture contents.

That provision said you cannot blend it if the moisture contents differ by more than 4 percent. I am not sure whether that is the right number.

But many of the difficulties overseas are as a result of the great range of moisture contents in individual kernels throughout a lot of grain, and I think that is a serious problem that has to be addressed in the law.

Finally, I want to bring to the subcommittee a concept, one version of which is defined in this bill, that says we are not likely to get a solution to this problem until we begin to provide incentives to provide high-quality grain, all the way back through the system, and particularly at this point in time I think it would cost very little to use some of our surpluses of grain in this country, to provide a bonus for high quality, a PIK for high quality, if you will, starting right with the producer at the point at which he delivers his grain to that first elevator.

I am a farmer. There is no incentive anymore for me to adjust that combine to keep all the trash out. There is no incentive for me to reduce that moisture content below the maximum allowable. There should be an incentive for me as a producer to do that. There should be an incentive at that elevator to maintain that.

I think it is quite possible to have a system of modest in-kind bonuses at the point of first entry into the commercial market, and at the point of export, to overcome the incentive to adulterate grain that we have at the present time.

I would also point out, that I think there would be some merit in providing an incentive of that kind, a PIK bonus, if you will, on forfeitures of grain to the Commodity Credit Corporation. Right now, a tremendous problem with Commodity Credit Corporation is deterioration in the quality of their product, and right now, what the Commodity Credit Corporation really is is a manufacturer of low quality grain, in that we put it in there for extended periods of time, they keep it until it deteriorates in quality, and then they sell it so that it goes into the export market, and replace it with good grain which is again kept until it deteriorates.

This process is greatly accelerated by the lack of quality of the grain that goes in. We can provide a great incentive to reduce that effect by giving a bonus to the person who forfeits high quality grain to the Commodity Credit Corporation. These are some thoughts on some things that I thought you might consider, and I thank you again for the opportunity to appear before your subcommittee. I would like to make available to any members of your staff, or the committee staff, a draft of that bill that I think will be introduced in the House, for what value it may be to you.

Senator ANDREWS. Thank you very much, Congressman, for an excellent statement, and for your support of finding a means of remedying this problem. Senator Zorinsky.

Senator ZORINSKY. I congratulate you, Congressman Evans, for your work in grain standards legislation. I know a great deal of it is through personal perseverance and experience. I look forward to your helping with this legislation.

Mr. EVANS. Well, I thank the subcommittee, and say that I think that on the House side, we are going to have hearings on this same subject, beginning, I believe in June, but I hope we could collectively get something accomplished before the session adjourns. Thank you very much.

Senator ANDREWS. Thank you.

Our next witness is Dr. Ken Gilles, who is the Administrator of the Federal Grain Inspection Service. Ken, good to have you here. Might I remind my colleague, Ken is a North Dakota native—not a native, but he sure was a resident there for a good long time, ran our cereal technical operation at NDSU and has done a great job down here. Glad to have you here. You are the one who was put in charge, or your shop was put together in answer to the problem that we perceived 10 years ago, so it is fitting that you be the lead-off noncongressional witness to tell us how it is going.

STATEMENT OF DR. KENNETH A. GILLES, ADMINISTRATOR, FEDERAL GRAIN INSPECTION SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Dr. GILLES. Thank you, Mr. Chairman, distinguished members of the panel. It is a pleasure to be here and to appear, and to submit comments relative to bill S. 1121, and also some general comments relative to export grain quality from our point of perception.

We have members of our technical staff here, so that in the event that questions arise, that may be more appropriately answered by them, I will refer those questions.

The Department of Agriculture has supported, and will continue to support, legislation which seeks to improve the quality of U.S. export grain.

While we believe the objective of the S. 1121 is to improve the overall quality of export grain, we do not think the bill, in its present form, will accomplish that objective.

The bill includes an exception that permits the addition of grain dust or grain related material to conform to export contract terms, and it is so broad that it could include practices contrary to the objective of the bill.

Additionally, the bill's proviso would permit the addition of non-grain material to suppress dust and to destroy, or prevent insects and fungi. It would not permit the dyeing of grain for identification purposes, which is a current industry practice. So, accordingly, the Department would support the bill if the exception were deleted and the proviso were broadened.

As we consider the issue of grain quality, we need to consider the difference between the real and the perceived quality in the eyes of the buyer.

Whether real or perceived, any quality concern on the part of the buyer can be a major stumbling block in effecting a successful sale.

Also, as we discuss grain quality, we need to keep in mind the different sectors of the industry concerned with grain quality.

The producer, exporter, and importer, or user have the most direct and obvious concerns. But another important factor in the quality formula is our competition, which has become more intense.

On January 7, 1986, the Federal Grain Inspection Service conducted a public hearing concerning wheat dockage certification, which addressed the topic of grain quality, and specifically, the matter of dockage as related to foreign complaints.

It was apparent from the comments of the participants, especially the comments of buyers from South America, Israel, and Japan, that there is a problem. Japan had five representatives at the meeting. Their keen interest was reflected by the use of such terms as: "It is not rational to under-report." "We have been asking but to no avail." "We hope to keep good relations" and "Change at your earliest convenience." These are polite comments which indicate frustration.

Why is there concern about exports? After reaching a high of 131 million metric tons inspected in 1980-81, U.S. exports have declined to about 95 million metric tons in a 1986 estimate. World grain supplies are abundant. The industry is pessimistic; complaints are increasing.

In recent months, several articles have appeared in newspapers and magazines regarding grain quality. These articles have elevated the level of public awareness; some of them have been good articles; others have contained misleading and erroneous statements which may lead to misconceptions.

In any event it is clear that we need to continue to enhance efforts to improve the quality of grain.

One of the provisions of the 1985 farm bill directs the Office of Technology Assessment to study the exports. USDA is cooperating with this study and we look forward to their recommendations.

During the past 3 years, quality complaints have increased from 13 in 1983, 22 in 1984, to 71 in 1985. During this period, the value of the dollar, and alternative grain supplies have increased substantially. In 1985, about 40 complaints related to "poor appearance", or "difference of appearance" of the grain, when compared to past experiences of the buyer. The grades were in compliance but the buyer was unhappy.

Broadly looking over the past 5 years, complaints have represented about two-tenths of 1 percent of the total quantity of grain exported.

FGIS has recently acquired computer capability to accommodate and evaluate inspection data. To facilitate decisions concerning potential improvements in grain quality, we have published a series of U.S. Export Quality Reports for corn, for soybeans, and for wheat, for the calendar years 1984 and 1985. We would like to make the 1985 reports a part of the record.

Senator ANDREWS. It will be done.

[The reports follow:]



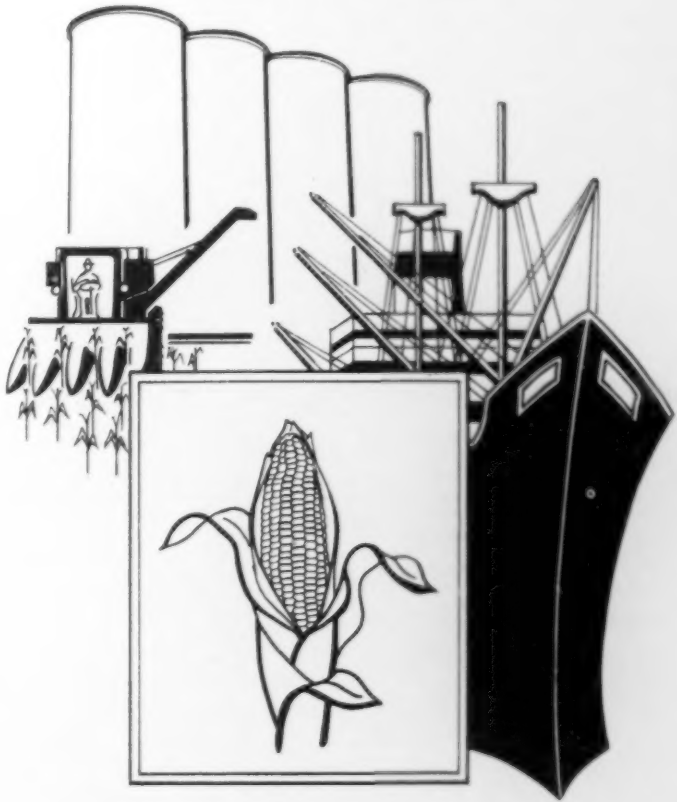
United States
Department of
Agriculture

Federal Grain
Inspection
Service

April 1986

U.S. Export Corn Quality, 1985

Second Calendar Year Report



U.S. Export Corn Quality, 1985

Second Calendar Year Report

Corn Grades and Grade Requirements

Corn is divided into three classes: Yellow Corn, White Corn, and Mixed Corn. There are no subclasses of corn. Yellow Corn is the class most often shipped for export from the United States. Each class of corn is divided into five U.S. numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or conditions affecting the value of the corn. These special grades are made a part of the grade designation but do not affect the numerical or Sample grade designation.

U.S. Standards for Corn*

Grade	Minimum test weight per bushel (pounds)	Broken corn and foreign material (BCFM)	Maximum limits of —	
			Damaged kernels	
			Total	Heat- damaged kernels
			----- (percent) -----	
U.S. No. 1	56.0	2.0	3.0	0.1
U.S. No. 2	54.0	3.0	5.0	0.2
U.S. No. 3	52.0	4.0	7.0	0.5
U.S. No. 4	49.0	5.0	10.0	1.0
U.S. No. 5	46.0	7.0	15.0	3.0
U.S. Sample grade:				

U.S. Sample grade:

U.S. Sample grade shall be corn which —

- Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5;
- In a 1,000 gram sample, contains 8 or more stones which have an aggregate weight in excess of 0.20 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds, 2 or more castor beans, 8 or more cockleburrs, 4 or more particles of an unknown substance(s) or a commonly recognized harmful or toxic substance(s), or animal filth in excess of 0.20 percent; or
- Has a musty, sour, or commercially objectionable foreign odor; or
- Is heating or otherwise of distinctly low quality.

* As of September 9, 1985, moisture is no longer a grading factor for corn, although it is required to be shown on the certificate.

For definitions of grading factors and other terms, refer to page 7.

For more information, contact the Administrative and Program Services Branch, Resources Management Division, Federal Grain Inspection Service, U.S. Department of Agriculture, Washington, D.C. 20250; telephone (202) 382-1741. For additional copies of this report, call (202) 475-3367.

Corn

Background

There has been a growing industry-wide concern regarding the quality of U.S. grain exports in the past few years. To truly ascertain U.S. grain export quality, the U.S. Department of Agriculture's Federal Grain Inspection Service began analyzing export grain data. The first comprehensive report was for calendar year 1984. In this 1985 study, 1,516 export corn lots were analyzed. The data represented 92 percent of the total 1,721 million bushels inspected for export during calendar year 1985. No analysis was made of the 2 percent exports from the interior by truck or rail.

For comparison purposes, we have included 1984 export corn quality results and broken down the grade factor averages for U.S. No. 2 and No. 3. Further, a comparison by Port Region of grading factors for 1984 and 1985 is shown for No. 2 and No. 3.

Corn represented 48 percent of the total 3.55 billion bushels of grain inspected for export in 1985. Shipments from the Gulf accounted for 63 percent of the total corn exports.

Conclusions

1. Twenty-three percent of the corn inspected for 1985 export was U.S. No. 2 or better and 77 percent was U.S. No. 3. In 1984, 26 percent was U.S. No. 2 or better and 73 percent was U.S. No. 3.
2. A comparison of 1985 and 1984 grade factors showed that 1985 corn exports had improved test weight (+0.2 lbs.).

had less broken corn and foreign material (-0.1 percent) and damage (-1.1 percent), but experienced greater moisture (+0.6 percent).

3. The factor improvements were the most significant in the Atlantic export area.



Table 1. Summary of Export Corn Quality, 1984 and 1985

Factor	Grade	Grade Limit	1984 ¹ Average	1985 ¹ Average	1985 Range
Test weight per bushel	U.S. No. 2	54.0	55.7	55.7	54.0 - 59.0
	U.S. No. 3	52.0	55.7	55.9	52.0 - 58.7
	All Lots		55.7	55.9	51.5 - 59.0
Moisture	U.S. No. 2	15.5	14.0	14.4	11.7 - 15.5
	U.S. No. 3	17.5	14.1	14.7	13.0 - 15.5
	All Lots		14.1	14.7	11.7 - 15.5
BCFM	U.S. No. 2	3.0	2.7	2.8	0.7 - 3.0
	U.S. No. 3	4.0	3.7	3.6	0.7 - 4.0
	All Lots		3.5	3.4	0.7 - 9.8
Damaged kernels (total)	U.S. No. 2	5.0	3.6	2.9	0.3 - 4.7
	U.S. No. 3	7.0	4.4	3.2	0.6 - 6.8
	All Lots		4.2	3.1	0.3 - 7.6
Heat-damaged kernels	U.S. No. 2	0.2	0.0	0.0	0.0 - 0.2
	U.S. No. 3	0.5	0.0	0.0	0.0 - 0.2
	All Lots		0.0	0.0	0.0 - 0.3

¹ The 1984 results are based on the grades of 3 lots of U.S. No. 1, 512 lots of U.S. No. 2, 1124 lots of U.S. No. 3, 8 lots of U.S. No. 4, 12 lots of U.S. No. 5, and 16 lots of U.S. Sample grade.

² The 1985 results are based on the grades of 1 lot of U.S. No. 1, 406 lots of U.S. No. 2, 1097 lots of U.S. No. 3, 5 lots of U.S. No. 4, 4 lots of U.S. No. 5, and 3 lots of U.S. Sample grade.

Table 2. Summary of Export U.S. No. 2 Corn Quality, 1984 and 1985
Factor Averages by Port Region

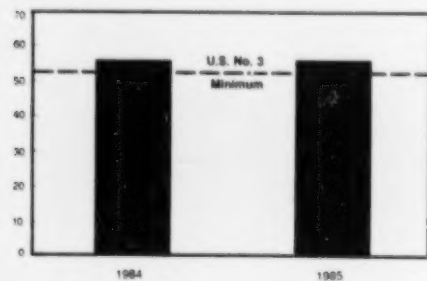
Factor and Volume	Atlantic		Gulf		Lakes		Pacific		U.S.	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Million bushels	81	19	242	192	15	7	95	114	403	332
Test weight per bushel	56.5	56.5	56.5	56.0	55.4	55.6	55.3	55.2	55.7	55.7
Moisture	14.5	14.5	14.0	14.6	13.8	14.2	13.7	14.2	14.0	14.4
BCFM	2.7	2.7	2.7	2.8	2.7	2.4	2.8	2.9	2.7	2.8
Damaged kernels (total)	3.3	2.5	3.8	2.9	3.3	3.6	3.2	2.8	3.6	2.9
Heat damaged kernels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 3. Summary of Export U.S. No. 3 Corn Quality, 1984 and 1985
Factor Averages by Port Region

Factor and Volume	Atlantic		Gulf		Lakes		Pacific		U.S.	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Million bushels	81	128	889	870	63	75	207	173	1239	1246
Test weight per bushel	55.7	56.8	55.9	56.0	55.3	55.1	55.4	55.3	55.7	55.9
Moisture	15.0	14.9	14.1	14.8	14.4	14.7	13.7	14.6	14.1	14.7
BCFM	3.7	3.4	3.7	3.6	3.6	3.6	3.6	3.7	3.7	3.6
Damaged kernels (total)	4.0	2.6	4.6	3.3	3.3	3.2	4.0	3.1	4.4	3.2
Heat damaged kernels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

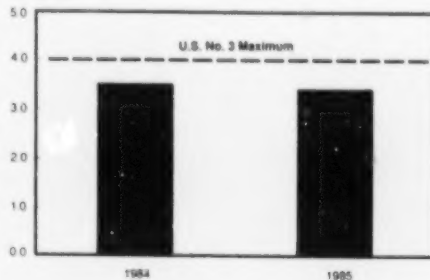
Corn — Average Test Weight
1984 —vs— 1985

Pounds per bushel



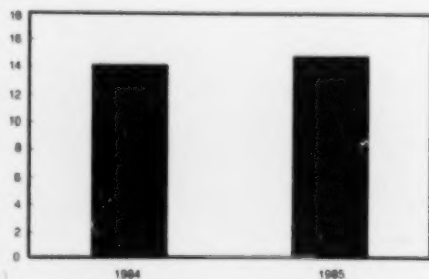
Corn — Average BCFM
1984 —vs— 1985

Percent



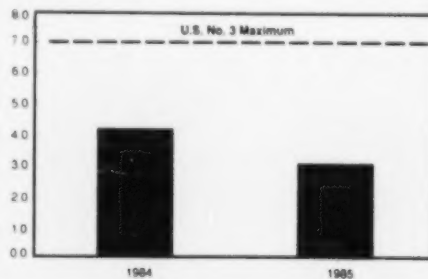
Corn — Average Moisture
1984 —vs— 1985

Percent

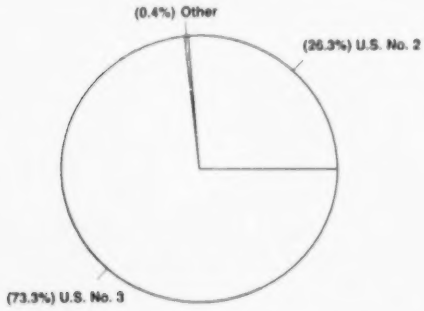


Corn — Average Damaged Kernels Total
1984 —vs— 1985

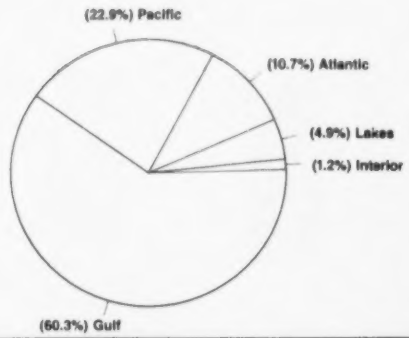
Percent



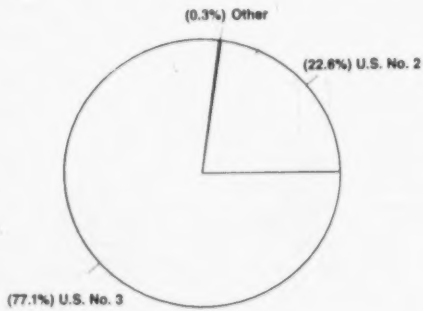
1984 Corn Exports
Grade Distribution



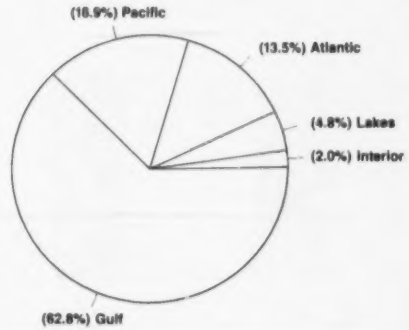
Corn Exports by Region — 1984



1985 Corn Exports
Grade Distribution

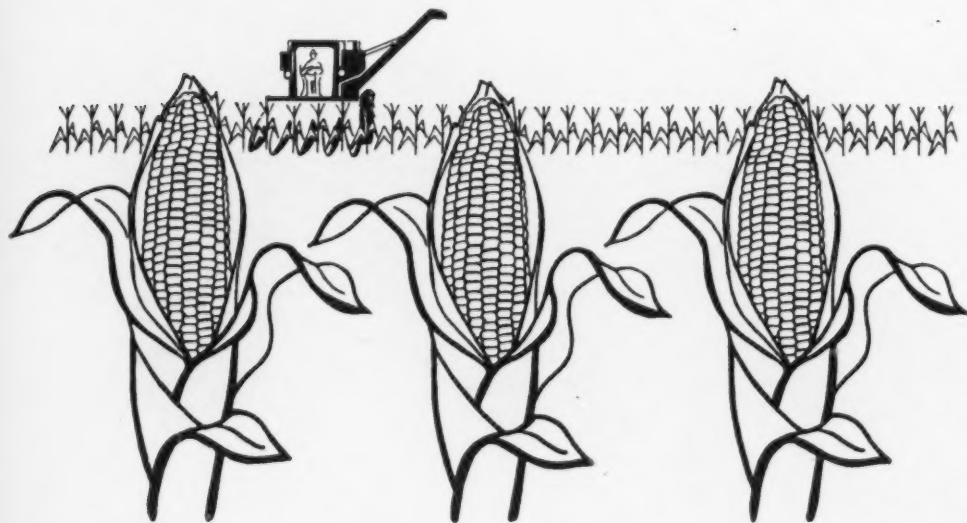


Corn Exports by Region — 1985



Definitions

- **Test weight** per bushel is a determination of the number of pounds of corn in a Winchester bushel.
- **Moisture** is the water content of corn as determined by an approved electronic moisture meter. Effective September 9, 1985, the percentage of moisture in a sample does not affect the numerical grade.
- **Broken corn and foreign material (BCFM)** is composed of kernels and pieces of kernels of corn and all matter other than corn which will pass readily through a 12/64-inch sieve, and all matter other than corn which remains in the sieved sample.
- **Damaged kernels (total)** are kernels and pieces of kernels of corn which are heat damaged sprouting, frost, discoloration, weather, mold, disease, or other types of damage.
- **Heat-damaged kernels** are kernels and pieces of corn kernels which have been materially discolored and damaged by heat.
- **Grade** is determined by analyzing the physical and biological factors present in the sample. Limits for the grading factors are established for each numerical and Sample grade. Grades range from U.S. No. 1 (highest) to U.S. Sample grade (lowest). When a particular grade is cited in this report, it includes lots certificated at that grade plus lots certificated with the "or better" designation. For example, U.S. No. 2 includes lots certificated as "U.S. No. 2" and lots certificated as "U.S. No. 2 or better." Factors that exceed the established limits lower the numerical grade, except for test weight where established limits represent minimum requirements for each grade.
- **Note:** All 1984 and 1985 average factor values contained in this report have been calculated by weighting individual export lot factor averages by volume. Average factor values reported in the 1984 U.S. Export Corn Quality report were not weighted by volume. This fact accounts for some differences between factor results reported in that report and 1984 factor results included in this report.





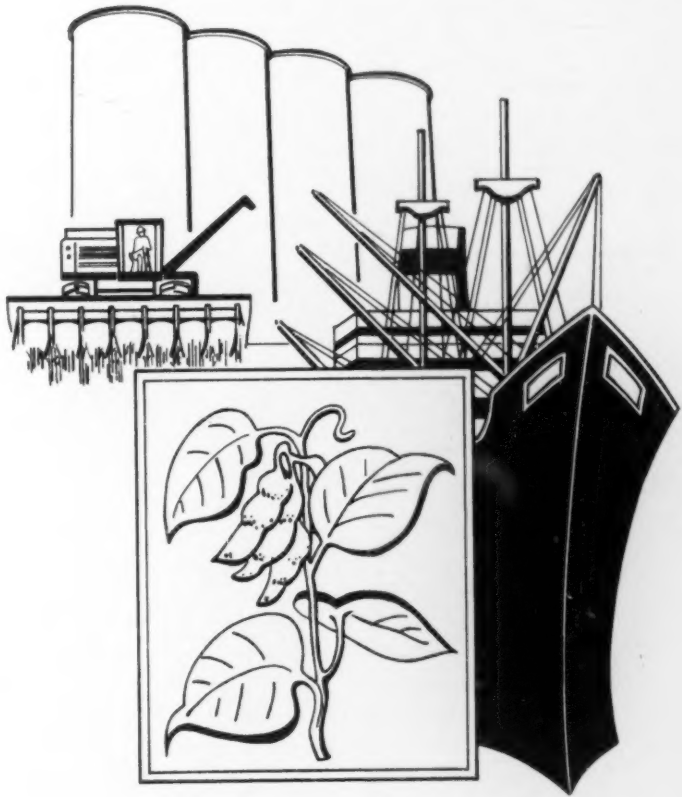
United States
Department of
Agriculture

Federal Grain
Inspection
Service

April 1986

U.S. Export Soybean Quality, 1985

Second Calendar Year Report



U.S. Export Soybean Quality, 1985

Second Calendar Year Report

Soybean Grades and Grade Requirements

There are two classes of soybeans: Yellow soybeans and Mixed soybeans. There are no soybean sub-classes. Yellow soybeans is the class most commonly exported by the U.S. market. Each class is divided into four U.S. numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or conditions affecting the value of the soybeans. These special grades are a part of the grade designation but do not affect the numerical or Sample grade designation.

U.S. Standards for Soybeans*

Grade	Minimum Test weight per bushel (pounds)	Maximum limits of —				
		Damaged kernels				*Soybeans of other colors
		Splits	Total	Heat damaged (percent)	Foreign material	
U.S. No. 1	56.0	10.0	2.0	0.2	1.0	1.0
U.S. No. 2	54.0	20.0	3.0	0.5	2.0	2.0
U.S. No. 3 ¹	52.0	30.0	5.0	1.0	3.0	5.0
U.S. No. 4 ²	49.0	40.0	8.0	3.0	5.0	10.0

U.S. Sample grade:

U.S. sample grade shall be soybeans which —

- (a) Do not meet the requirements for U.S. Nos. 1, 2, 3, or 4; or
- (b) Contain 8 or more stones which have an aggregate weight in excess of 0.2 percent of the sample weight, 2 or more pieces of broken glass, 3 or more *Crotalaria* seeds, 2 or more castor beans, 4 or more pieces of an unknown substance(s) or a commonly recognized harmful or toxic substance(s), 10 or more pieces of rodent pellets, bird droppings, or an equivalent quantity of other animal filth per 1,000 grams of soybeans; or
- (c) Has a musty, sour, or commercially objectionable foreign odor (except garlic odor); or
- (d) Are heating or otherwise of distinctly low quality.

¹ Soybeans which are purple mottled or stained shall be graded not higher than U.S. No. 3.

² Soybeans which are materially weathered shall be graded not higher than U.S. No. 4.

* As of September 9, 1985, moisture is no longer a grading factor for soybeans, although it is required to be shown on the certificate. Also, on the same date the factor "brown, black, and/or bicolored soybeans in Yellow or Green soybeans" was changed to "soybeans of other colors." In Mixed soybeans, the factor is disregarded.

For definitions of grading factors and other terms, refer to page 7.

For more information, contact the Administrative and Program Services Branch, Resources Management Division, Federal Grain Inspection Service, U.S. Department of Agriculture, Washington, D.C. 20250; telephone (202) 382-1741. For additional copies of this report, call (202) 475-3367.

Soybeans

Background

There has been a growing industry-wide concern regarding the quality of U.S. grain exports in the past few years. To truly ascertain U.S. grain export quality, the U.S. Department of Agriculture's Federal Grain Inspection Service began analyzing export grain data. The first comprehensive report was for calendar year 1984. In this 1985 study, 580 export Yellow soybean lots were analyzed. The data represented 86 percent of the total 617 million bushels inspected for export during calendar year 1985. No analysis was made of the 3 percent exports from the interior by truck or rail.

For comparison purposes, 1984 export soybean quality results have been included, and FGIS has broken down the grade factor averages for No. 1, No. 2, and No. 3. Further, a comparison by port region of grading factors for 1984 and 1985 is shown for No. 2 and No. 3 soybeans.

Soybeans represented 17 percent of the total 3.55 billion bushels of grain inspected for export in 1985. Soybean shipments from the Gulf of Mexico accounted for 79 percent of the total soybean exports.

Conclusions

1. Eighty-seven percent of the export shipments were graded U.S. No. 2 or better, and 12 percent were U.S. No. 3. In 1984, 89 percent of the shipments were graded U.S. No. 2 or better, and 10 percent were U.S. No. 3.
2. Although 1985 quality in terms of splits improved over 1984 with a reduction on average (-1.5), test weight fell (-0.2 pound), moisture rose (+0.4 percent), total damaged kernels increased (+0.5 percent), and heat-damaged kernels went up (+0.1 percent).
3. There was little or no difference in a comparison between 1985 and 1984 average soybean foreign material and soybeans of other colors.
4. In 1985, the Gulf exhibited the biggest increase in damaged kernels (total), whereas the Lakes demonstrated the biggest decline in test weight per bushel and increase in moisture.

Table 1. Summary of Export Yellow Soybeans Quality, 1984 and 1985

Factor	Grade	Grade Limit	1984 ¹ Average	1985 ¹ Average	1985 Range
Test weight per bushel	U.S. No. 1	56.0	56.1	56.4	56.0 - 57.0
	U.S. No. 2	54.0	55.7	55.4	54.0 - 57.9
	U.S. No. 3	52.0	55.4	55.1	52.5 - 57.9
	All Lots		55.6	55.4	52.0 - 57.9
Moisture	U.S. No. 1	13.0	12.4	12.3	11.0 - 13.4
	U.S. No. 2	14.0	12.6	13.0	11.2 - 14.0
	U.S. No. 3	16.0	12.8	13.2	11.6 - 14.0
	All Lots		12.6	13.0	11.0 - 14.0
Splits	U.S. No. 1	10.0	5.3	3.7	0.0 - 9.0
	U.S. No. 2	20.0	7.3	5.9	0.4 - 18.0
	U.S. No. 3	30.0	7.8	6.7	0.5 - 16.0
	All Lots		7.4	5.9	0.0 - 18.0
Damaged kernels (total)	U.S. No. 1	2.0	0.6	0.5	0.1 - 0.9
	U.S. No. 2	3.0	1.0	1.5	0.2 - 3.0
	U.S. No. 3	5.0	1.1	1.7	0.4 - 4.0
	All Lots		1.0	1.5	0.1 - 7.6
Heat-damaged kernels	U.S. No. 1	0.2	0.0	0.0	0.0 - 0.0
	U.S. No. 2	0.5	0.0	0.1	0.0 - 0.4
	U.S. No. 3	1.0	0.0	0.0	0.0 - 0.5
	All Lots		0.0	0.1	0.0 - 0.5
Foreign material	U.S. No. 1	1.0	0.8	0.8	0.0 - 1.0
	U.S. No. 2	2.0	1.8	1.8	0.7 - 2.0
	U.S. No. 3	3.0	2.4	2.4	1.3 - 3.0
	All Lots		1.9	1.9	0.0 - 3.5
Soybeans of other colors	U.S. No. 1	1.0	0.0	0.0	0.0 - 0.0
	U.S. No. 2	2.0	0.0	0.0	0.0 - 0.1
	U.S. No. 3	5.0	0.0	0.0	0.0 - 0.1
	All Lots		0.0	0.0	0.0 - 0.1

¹ 1984 statistics based on a total of 653 lots: 9 for U.S. No. 1, 574 for U.S. No. 2, 64 for U.S. No. 3, 4 for U.S. No. 4, and 2 for U.S. Sample grade.

² 1985 statistics are based on a total of 580 lots: 16 for U.S. No. 1, 490 for U.S. No. 2, 68 for U.S. No. 3, 5 for U.S. No. 4, and 1 for U.S. Sample grade.

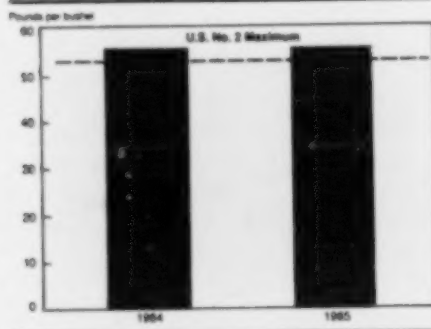
Table 2. Summary of Export U.S. No. 2 Yellow Soybean Quality, 1984 and 1985
Factor Averages by Port Region

Factor and Volume	Atlantic		Gulf		Lakes		Pacific		U.S.	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Million bushels	35	44	448	366	34	26	25	17	542	453
Test weight per bushel	56.6	56.1	55.5	55.2	56.6	55.2	55.5	56.0	55.7	55.4
Moisture	13.0	13.5	12.6	12.9	13.0	13.6	11.7	12.0	12.6	13.0
Splits	6.3	4.4	7.4	6.1	5.2	2.7	10.7	8.4	7.3	5.9
Damaged kernels (total)	0.7	1.0	1.1	1.6	0.4	0.4	0.8	0.6	1.0	1.5
Heat damaged	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Foreign material	1.8	1.7	1.8	1.8	1.7	1.7	1.8	1.7	1.8	1.8
Soybeans of other colors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

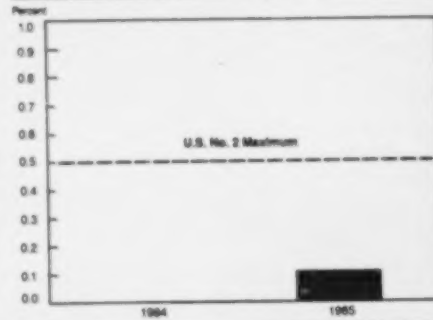
Table 3. Summary of Export U.S. No. 3 Yellow Soybean Quality, 1984 and 1985
Factor Averages by Port Region

Factor and Volume	Atlantic		Gulf		Lakes		Pacific		U.S.	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Million bushels	2	4	57	62	2	1	—	—	61	65
Test weight per bushel	56.6	56.4	55.3	55.0	56.9	56.0	—	—	55.4	55.1
Moisture	13.2	13.7	12.7	13.2	13.2	13.9	—	—	12.8	13.2
Splits	7.2	8.4	7.9	6.6	6.5	7.0	—	—	7.8	6.7
Damaged kernels (total)	0.7	0.8	1.2	1.7	0.4	0.4	—	—	1.1	1.7
Heat damaged	0.0	0.0	0.0	0.1	0.1	0.0	—	—	0.0	0.1
Foreign material	2.7	2.7	2.4	2.4	2.3	2.0	—	—	2.4	2.4
Soybeans of other colors	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	0.0

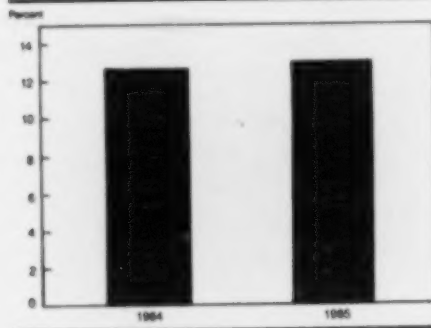
Soybeans — Average Test Weight
1984 —vs— 1985



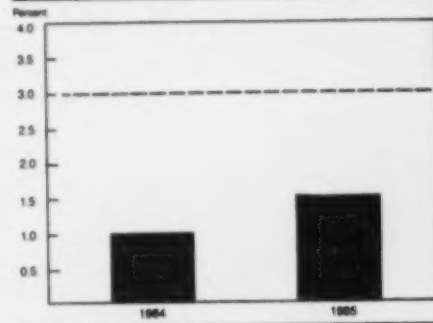
Soybeans — Average Heat Damage
1984 —vs— 1985



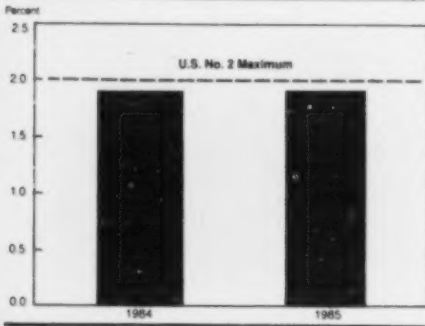
Soybeans — Average Moisture
1984 —vs— 1985



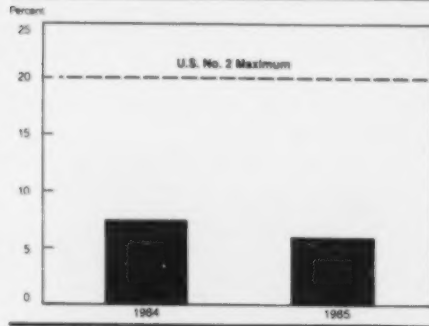
Soybeans — Average Damaged Kernels Total
1984 —vs— 1985



Soybeans — Average Foreign Material
1984 —vs— 1985



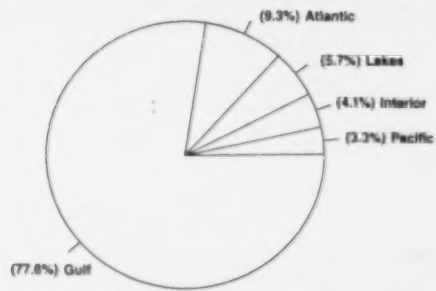
Soybeans — Average Splits
1984 —vs— 1985



1984 Soybean Exports
Grade Distribution



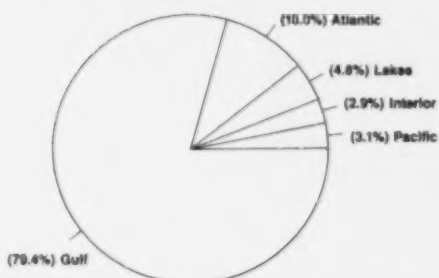
Soybean Exports by Region — 1984



1985 Soybean Exports
Grade Distribution



Soybean Exports by Region — 1985



Definitions

- **Test weight per bushel** is a determination of the number of pounds of soybeans in a Winchester bushel.
- **Moisture** is the water content of grain as determined by an approved electronic moisture meter. Effective September 9, 1985, the percentage of moisture in a sample does not affect the numerical grade.
- **Splits** are soybeans with more than one-fourth of the bean removed and which are not damaged.
- **Damaged kernels** are soybeans and pieces of soybeans which are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect-bored, mold-damaged, sprout-damaged, insect-bored, mold-damaged, sprout-damaged, stinkbug-stung, or otherwise materially damaged.
- **Heat-damaged kernels** are soybeans and pieces of soybeans which are materially discolored and damaged by heat.
- **Foreign material** is all matter, including soybeans and pieces of soybeans, which will readily pass through an 8/64 inch sieve and all matter other than soybeans remaining on the sieve after sieving.
- **Soybeans of other colors** are soybeans which have green, black, brown, or bicolored seed coats. Before September 9, 1985, this factor was called "brown, black, and/or bicolored soybeans in yellow or green soybeans."
- **Grade** is determined by analyzing the physical and biological factors present in the sample. Limits for the grading factors are established for each numerical and Sample grade. Grades range from U.S. No. 1 (highest) to U.S. Sample grade (lowest). When a particular grade is cited in this report, it includes lots certificated at that grade plus lots certificated with the "or better" designation. For example, U.S. No. 2 includes lots certificated as "U.S. No. 2" and lots certificated as "U.S. No. 2 or better." Factors that exceed the established limits lower the numerical grade, except for test weight where established limits represent minimum requirements for each grade.
- **Note:** All 1984 and 1985 average factor values contained in this report have been calculated by weighting individual export lot factor averages by volume. Average factor values reported in the 1984 U.S. Export Soybean Quality report were not weighted by volume. This fact accounts for some differences between factor results reported in that report and 1984 factor results included in this report.





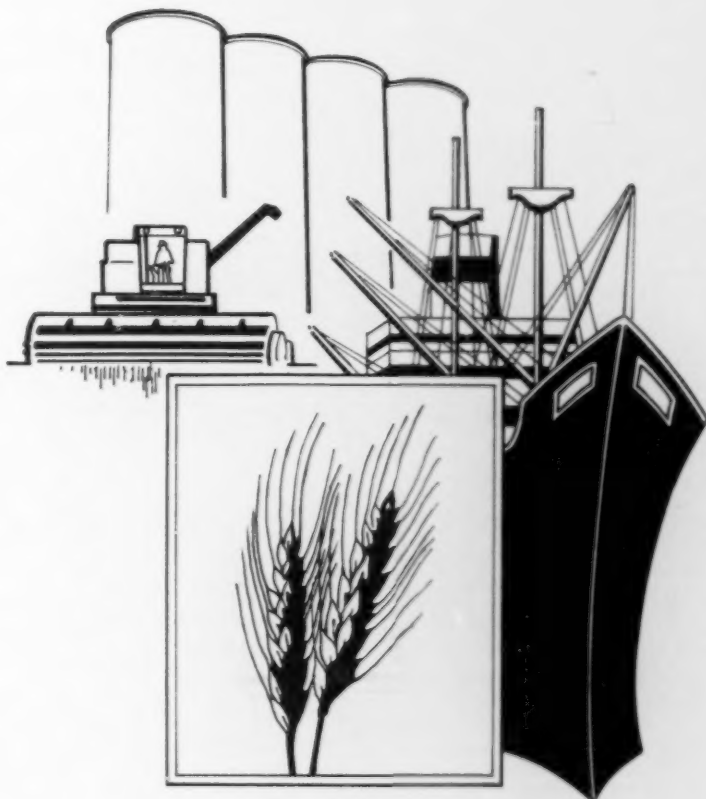
United States
Department of
Agriculture

Federal Grain
Inspection
Service

April 1986

U.S. Export Wheat Quality, 1985

Second Calendar Year Report



U.S. Export Wheat Quality, 1985

Second Calendar Year Report

Wheat Grades and Grade Requirements

Wheat is divided into seven classes which are based on color, kernel, and varietal characteristics: Hard Red Spring wheat, Hard Red Winter wheat, Soft Red Winter wheat, Durum wheat, White wheat, Unclassed wheat, and Mixed wheat. The classes Hard Red Spring wheat, Durum wheat, and White wheat are further divided into subclasses. There are no subclasses in the classes Hard Red Winter wheat, Soft Red Winter wheat, Unclassed wheat, and Mixed wheat. Each class and subclass is divided into five U.S. numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or conditions affecting the value of wheat. Special grades are added to and made

a part of the grade designation. They do not affect the numerical or Sample grade designation.

For definitions of grading factors and other terms, refer to page 11.

For more information, contact the Administrative and Program Services Branch, Resources Management Division, Federal Grain Inspection Service, U.S. Department of Agriculture, Washington, D.C. 20250; telephone (202) 382-1741. For additional copies of this report, call (202) 475-3367.

U.S. Standards for Wheat*

Grade	Minimum limits of—		Maximum limits of —						
	Test weight per bushel		Heat damaged kernels	Damaged kernels (total) ²	Foreign material	Shrunken and broken kernels	Defects (total) ³	Wheat of other classes ⁴	
	Hard Red Spring wheat or White Club wheat (pounds) ¹	All other classes and subclasses (pounds)						Contrasting classes	Wheat of other classes ⁵
			(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
U.S. No. 1	58.0	60.0	0.2	2.0	0.5	3.0	3.0	1.0	3.0
U.S. No. 2	57.0	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0
U.S. No. 3	55.0	56.0	0.5	7.0	2.0	8.0	8.0	3.0	10.0
U.S. No. 4	53.0	54.0	1.0	10.0	3.0	12.0	12.0	10.0	10.0
U.S. No. 5	50.0	51.0	3.0	15.0	5.0	20.0	20.0	10.0	10.0

U.S. Sample grade:

U.S. Sample grade shall be wheat which —

- Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5; or
- Contain 8 or more stones, 2 or more pieces of broken glass, 3 or more crotalaria seeds (*Crotalaria ssp.*), 2 or more castor beans (*Ricinus communis*), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), or 2 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth per 1,000 grams of wheat; or
- Has a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor); or
- Is heating or otherwise of distinctly low quality.

¹ These requirements also apply when Hard Red or White Club wheat predominate in a sample of Mixed wheat.

² Includes heat-damaged kernels.

³ Defects (total) include damaged kernels (total), foreign material, and shrunken and broken kernels. The sum of three factors may not exceed the limit for defects.

⁴ Unclassed wheat of any grade may contain not more than 10 percent of wheat of other classes.

⁵ Includes contrasting classes.

* Effective May 1, 1985

Wheat

Background

There has been a growing industry-wide concern regarding the quality of U.S. grain exports in the past few years. To truly ascertain U.S. grain export quality, the U.S. Department of Agriculture's Federal Grain Inspection Service began analyzing export grain data. The first comprehensive report was for calendar year 1984. In this 1985 study, 2,015 export wheat lots were analyzed. The data represented 97 percent of the total 905 million bushels of wheat inspected for export during calendar year 1985.

To broaden the 1985 quality study, available domestic wheat quality reports and dockage results in truck inspections made

during harvest by the National Inspection System at selective interior locations have been added.

For comparison purposes, FGIS has included 1984 export wheat quality results and other 1984 domestic data where it was appropriate.

Wheat represented 26 percent of the total 3.55 billion bushels of grain exported in 1985. Gulf shipments accounted for 53 percent of the total wheat exports, and Pacific region shipments accounted for 34 percent of the total.

Principal Conclusions

1. Ninety-six percent of the wheat inspected for export in 1985 was graded U.S. No. 2 or better. Quality factor averages remained well below the maximum allowed percentages for U.S. No. 2 wheat for each wheat class.
2. The quality characteristics of 1985 exported wheat were similar to 1984 but with an improvement in Durum wheat. Specifically, the average total defects in Durum wheat were 0.8 percent less than the 1984 average.
3. The average 1985 total defects were well below the 5.0 percent maximum allowed for U.S. No. 2 wheat. Specifically, by class average defects were 3.4 percent for Hard Red Winter wheat (HRW), 2.9 percent for Hard Red Spring wheat (HRS), 3.7 percent for Durum wheat (DU), and 2.0 percent for Soft Red Winter wheat (SRW) and White wheat (WW).
4. The average dockage for each class of wheat was 0.9 percent or less. The average dockage for all classes combined was 0.7 percent.
5. The average foreign material plus dockage for all classes combined was 1.0 percent, equal to the maximum foreign material allowed for U.S. No. 2 wheat. By class, HRS and DU exceeded the 1 percent level.
6. In 1985, export dockage levels were lower than dockage levels reported by state harvest surveys for HRS, DU, WW, and domestic truckload inspections for HRW, HRS, and WW. However, DU and SRW export dockage levels exceeded reported domestic trucklot levels.

Table 1. Summary of Export Hard Red Winter Wheat Quality, 1984 and 1985

Factor	U.S. No. 2 Grade Limit	1984 Average ¹	1985 Average ²	1985 Range ²
Test weight per bushel	58.0	61.7	61.3	58.1 - 64.4
Heat-Damaged Kernels	0.2	0.0	0.0	0.0 - 0.2
Damaged Kernels (Total)	4.0	0.7	0.6	0.0 - 2.1
Foreign Material	1.0	0.3	0.3	0.0 - 1.0
Shrunken & Broken Kernels	5.0	2.5	2.6	0.6 - 4.0
Defects (Total) ³	5.0	3.5	3.4	0.7 - 4.9
Contrasting Classes	2.0	0.0	0.1	0.0 - 1.7
Wheat of Other Classes	5.0	2.2	1.6	0.0 - 1.8
Dockage	N/A	0.6	0.7	0.2 - 1.8
Moisture	N/A	11.6	11.5	8.6 - 12.9
Defects (Total) + Dockage ³	N/A	4.2	4.1	1.2 - 5.8
Foreign Material + Dockage ³	N/A	0.9	1.0	0.5 - 2.0

N/A — Not Applicable.

¹ The 1984 results are based on 899 lots of U.S. No. 2 HRW and 1 lot of U.S. No. 3 HRW.² The 1985 results are based on 4 lots of U.S. No. 1 HRW and 692 lots of U.S. No. 2 HRW.³ The sum of the component factor averages may not equal the average of this factor due to rounding.

Table 2. Summary of Export Soft Red Winter Wheat Quality, 1984 and 1985

Factor	U.S. No. 2 Grade Limit	1984 Average ¹	1985 Average ²	1985 Range ²
Test weight per bushel	58.0	59.8	59.9	58.0 - 62.8
Heat-Damaged Kernels	0.2	0.0	0.0	0.0 - 0.1
Damaged Kernels (Total)	4.0	0.9	0.9	0.0 - 3.0
Foreign Material	1.0	0.2	0.2	0.0 - 0.8
Shrunken & Broken Kernels	5.0	0.9	1.0	0.4 - 2.6
Defects (Total) ³	5.0	2.0	2.0	0.7 - 4.4
Contrasting Classes	2.0	0.0	0.1	0.0 - 1.2
Wheat of Other Classes	5.0	0.4	0.3	0.0 - 7.4
Dockage	N/A	0.7	0.8	0.0 - 2.6
Moisture	N/A	13.0	13.0	9.9 - 13.5
Defects (Total) + Dockage ³	N/A	2.7	2.8	1.3 - 5.4
Foreign Material + Dockage ³	N/A	0.9	1.0	0.2 - 3.0

N/A — Not Applicable.

¹ The 1984 results are based on 326 lots of U.S. No. 2 SRW and 3 lots of U.S. No. 3 SRW.² The 1985 results are based on 1 lot of U.S. No. 1 SRW and 255 lots of U.S. No. 2 SRW and 1 lot of U.S. No. 3 SRW.³ The sum of the component factor averages may not equal the average of this factor due to rounding.

Table 3. Summary of Export White Wheat Quality, 1984 and 1985

Factor	U.S. No. 2 Grade Limit	1984 Average ¹	1985 Average ²	1985 Range ²
Test weight per bushel	56.0	61.3	61.1	58.4 - 69.6
Heat-Damaged Kernels	0.2	0.0	0.0	0.0 - 0.2
Damaged Kernels (Total)	4.0	0.5	0.5	0.0 - 2.1
Foreign Material	1.0	0.3	0.3	0.0 - 0.8
Shrunken & Broken Kernels	5.0	1.0	1.2	0.4 - 2.1
Defects (Total) ³	5.0	1.8	2.0	0.7 - 3.6
Contrasting Classes	2.0	0.2	0.2	0.0 - 1.6
Wheat of Other Classes	5.0	0.2	0.5	0.0 - 4.0
Dockage	N/A	0.6	0.7	0.2 - 1.4
Moisture	N/A	10.4	10.4	8.5 - 13.5
Defects (Total) + Dockage ³	N/A	2.5	2.7	1.1 - 4.8
Foreign Material + Dockage ³	N/A	0.9	0.9	0.4 - 1.8

N/A — Not Applicable.

¹ The 1984 results are based on 7 lots of U.S. No. 1 WW and 410 lots of U.S. No. 2 WW.² The 1985 results are based on 9 lots of U.S. No. 1 WW and 327 lots of U.S. No. 2 WW.³ The sum of the component factor averages may not equal the average of this factor due to rounding.

Table 4. Summary of Export Hard Red Spring Wheat Quality, 1984 and 1985

Factor	U.S. No. 2 Grade Limit	1984 Average ¹	1985 Average ²	1985 Range ²
Test weight per bushel	57.0	60.8	60.8	57.0 - 63.4
Heat-Damaged Kernels	0.2	0.0	0.0	0.0 - 0.1
Damaged Kernels (Total)	4.0	0.6	0.5	0.0 - 2.5
Foreign Material	1.0	0.4	0.3	0.1 - 0.9
Shrunken & Broken Kernels	5.0	2.2	2.0	0.8 - 3.0
Defects (Total) ³	5.0	3.2	2.9	1.1 - 4.8
Contrasting Classes	2.0	0.3	0.2	0.0 - 1.7
Wheat of Other Classes	5.0	1.4	1.3	0.0 - 4.8
Dockage	N/A	0.9	0.8	0.3 - 5.1
Moisture	N/A	11.5	11.5	9.4 - 13.4
Defects (Total) + Dockage ³	N/A	4.0	3.7	1.5 - 8.3
Foreign Material + Dockage ³	N/A	1.3	1.2	0.5 - 5.5

N/A — Not Applicable.

¹ The 1984 results are based on 551 lots of U.S. No. 2 HRS.² The 1985 results are based on 5 lots of U.S. No. 1 HRS and 541 lots of U.S. No. 2 HRS.³ The sum of the component factor averages may not equal the average of this factor due to rounding.

Table 5. Summary of Export Durum Wheat Quality, 1984 and 1985

Factor	Grade	Grade Limit	1984 Average ¹	1985 Average ²	1985 Range
Test weight per bushel	U.S. No. 2	58.0	61.3	61.3	59.7 - 62.3
	U.S. No. 3	56.0	60.6	61.1	59.6 - 62.3
	All Lots	N/A	60.8	61.2	59.6 - 62.3
Heat-Damaged Kernels	U.S. No. 2	0.2	0.0	0.0	0.0 - 0.2
	U.S. No. 3	0.5	0.0	0.0	0.0 - 0.0
	All Lots	N/A	0.0	0.0	0.0 - 0.2
Damaged Kernels (Total)	U.S. No. 2	4.0	0.8	0.8	0.2 - 2.1
	U.S. No. 3	7.0	1.7	1.6	0.3 - 5.4
	All Lots	N/A	1.5	1.3	0.0 - 5.4
Foreign Material	U.S. No. 2	1.0	0.3	0.4	0.0 - 0.8
	U.S. No. 3	2.0	0.9	0.6	0.1 - 1.7
	All Lots	N/A	0.8	0.6	0.0 - 1.7
Shrunken & Broken Kernels	U.S. No. 2	5.0	1.8	1.7	0.9 - 2.8
	U.S. No. 3	8.0	2.4	1.8	0.9 - 3.6
	All Lots	N/A	2.3	1.8	0.5 - 3.6
Defects (Total) ³	U.S. No. 2	5.0	2.9	2.9	1.3 - 4.7
	U.S. No. 3	8.0	4.9	4.1	1.4 - 7.7
	All Lots	N/A	4.5	3.7	0.6 - 7.7
Contrasting Classes	U.S. No. 2	2.0	0.9	0.8	0.0 - 2.0
	U.S. No. 3	3.0	1.6	1.4	0.1 - 2.8
	All Lots	N/A	1.4	1.2	0.0 - 2.8
Dockage	All Lots	N/A	1.1	0.9	0.5 - 1.5
Moisture	All Lots	N/A	11.4	11.5	7.4 - 14.1
Defects (Total) + Dockage ³	All Lots	N/A	5.6	4.6	1.5 - 8.8
Foreign Material + Dockage ³	All Lots	N/A	1.8	1.5	0.6 - 3.0

N/A — Not Applicable.

¹ The 1984 results are based on 63 lots of U.S. No. 2 DU and 154 lots of U.S. No. 3 DU.² The 1985 statistics are based on 3 lots of U.S. No. 1 DU, 69 lots of U.S. No. 2 DU, and 108 lots of U.S. No. 3 DU.³ The sum of the component factor averages may not equal the average for this factor due to rounding.

Table 6. Summary of Export Wheat Quality, 1984 and 1985:
Factor Averages by Port Region

Class	Factor and Volume	Atlantic		Gulf		Great Lakes		Pacific		U.S.	
		1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
HRW	Million bushels	—	—	668	310	<1	—	69	79	738	397
	Test Weight per bushel	—	—	61.6	61.0	62.1	—	63.0	62.5	61.7	61.3
	Heat-Damaged Kernels	—	—	0.0	0.0	0.0	—	0.0	0.0	0.0	0.0
	Damaged Kernels (Total)	—	—	0.7	0.6	0.5	—	0.1	0.2	0.7	0.6
	Foreign Material	—	—	0.3	0.3	0.6	—	0.4	0.3	0.3	0.3
	Shrunken & Broken Kernels	—	—	2.6	2.7	1.5	—	1.7	2.0	2.5	2.6
	Defects (Total) ¹	—	—	3.6	3.7	2.7	—	2.2	2.6	3.5	3.4
	Contrasting Classes	—	—	0.0	0.0	0.0	—	0.2	0.2	0.0	0.1
	Wheat of Other Classes	—	—	2.4	1.8	1.6	—	1.0	0.8	2.2	1.6
	Dockage	—	—	0.7	0.7	0.7	—	0.6	0.6	0.6	0.7
	Moisture	—	—	11.7	11.7	11.8	—	10.5	10.6	11.6	11.5
	Protein ²	—	—	12.1	12.3	—	—	11.9	11.8	12.1	12.1
SRW	Million bushels	15	34	198	84	9	13	—	<1	222	131
	Test Weight per bushel	59.4	69.3	59.8	59.5	61.2	61.8	—	62.3	59.8	59.9
	Heat-Damaged Kernels	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0
	Damaged Kernels (Total)	0.5	0.6	0.9	1.0	0.5	0.5	—	0.8	0.9	0.9
	Foreign Material	0.2	0.2	0.2	0.2	0.1	0.1	—	0.4	0.2	0.2
	Shrunken & Broken Kernels	1.2	0.8	0.9	1.1	0.7	0.6	—	1.2	0.9	1.0
	Defects (Total) ¹	1.9	1.6	2.0	2.4	1.3	1.1	—	2.4	2.0	2.0
	Contrasting Classes	0.0	0.0	0.0	0.0	0.0	0.0	—	0.3	0.0	0.0
	Wheat of Other Classes	0.1	0.1	0.3	0.3	1.3	0.8	—	0.3	0.4	0.3
	Dockage	0.7	0.7	0.7	0.8	0.6	0.7	—	0.7	0.7	0.9
	Moisture	12.8	12.9	13.0	13.1	13.3	13.2	—	9.9	13.0	13.0
	Protein ²	—	—	—	—	—	—	—	9.5	10.0	9.5
WW	Million bushels	2	14	—	—	9	6	188	130	199	150
	Test Weight per bushel	60.5	61.8	—	—	61.2	61.3	61.3	61.0	61.3	61.1
	Heat-Damaged Kernels	0.0	0.0	—	—	0.0	0.0	0.0	0.0	0.0	0.0
	Damaged Kernels (Total)	1.0	0.7	—	—	0.7	0.6	0.5	0.5	0.5	0.5
	Foreign Material	0.2	0.1	—	—	0.1	0.1	0.3	0.3	0.3	0.3
	Shrunken & Broken Kernels	0.7	0.5	—	—	0.5	0.4	1.1	1.4	1.0	1.2
	Defects (Total) ¹	1.9	1.3	—	—	1.4	1.2	1.8	2.1	1.8	2.0
	Contrasting Classes	0.0	0.0	—	—	0.0	0.0	0.2	0.2	0.2	0.2
	Wheat of Other Classes	1.1	2.1	—	—	1.3	2.6	0.2	0.2	0.2	0.5
	Dockage	0.6	0.6	—	—	0.6	0.5	0.6	0.7	0.6	0.7
	Moisture	13.1	13.2	—	—	13.4	13.4	10.2	9.9	10.4	10.4
	Protein ²	—	—	—	—	—	—	9.5	10.0	9.5	10.0
HRS	Million bushels	1	<1	52	45	49	28	68	81	170	154
	Test Weight per bushel	60.2	61.0	60.2	60.4	60.5	60.2	61.5	61.3	60.8	60.8
	Heat-Damaged Kernels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Damaged Kernels (Total)	1.1	0.5	0.9	0.7	0.7	0.9	0.2	0.3	0.6	0.5
	Foreign Material	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3
	Shrunken & Broken Kernels	2.6	1.9	2.4	2.2	2.3	2.0	1.9	1.9	2.2	2.0
	Defects (Total) ¹	4.1	2.7	3.7	3.4	3.5	3.3	2.5	2.4	3.2	2.9
	Contrasting Classes	0.7	0.1	0.2	0.1	0.2	0.2	0.4	0.3	0.3	0.2
	Wheat of Other Classes	0.8	0.2	1.7	1.0	1.4	1.0	1.2	1.5	1.4	1.3
	Dockage	1.3	0.8	1.0	0.9	0.8	0.7	0.8	0.8	0.9	0.8
	Moisture	11.9	12.0	11.9	12.1	11.8	12.2	11.0	11.0	11.5	11.5
	Protein ⁴	—	—	14.4	14.2	14.6	13.9	14.2	14.2	14.2	14.2

¹ The sum of the component factor average may not equal the average for this factor due to rounding.

² 1984 results based on 252 Gulf lots and 158 Pacific lots; 1985 results based on 217 Gulf lots and 212 Pacific lots.

³ 1984 results based on 191 Pacific lots; 1985 results based on 152 Pacific lots.

⁴ 1984 results based on 78 Gulf lots, 2 Lake lots, and 222 Pacific lots. 1985 results based on 97 Gulf lots, 55 Lake lots, and 264 Pacific lots.

Table 6. Cont.

Class	Factor and Volume	Atlantic		Gulf		Great Lakes		Pacific		U.S.	
		1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
DU	Million bushels	<1	—	12	14	47	24	7	8	66	46
	Test Weight per bushel	60.8	—	60.4	61.0	60.7	61.0	62.1	61.9	60.8	61.2
	Heat-Damaged Kernels	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Damaged Kernels (Total)	1.9	—	1.6	1.1	1.6	1.8	0.3	0.3	1.5	1.3
	Foreign Material	0.4	—	0.4	0.5	0.9	0.7	0.2	0.2	0.8	0.6
	Shrunken & Broken Kernels	2.5	—	2.4	2.0	2.4	1.9	1.1	1.0	2.3	1.8
	Defects (Total) ¹	4.7	—	4.5	3.6	4.9	4.4	1.7	1.6	4.5	3.7
	Contrasting Classes	1.9	—	1.5	1.3	1.6	1.4	0.5	0.2	1.4	1.2
	Dockage	1.8	—	1.2	1.0	1.1	0.9	0.9	0.9	1.1	0.9
	Moisture	12.2	—	12.0	12.0	11.6	12.3	8.4	8.3	11.4	11.5

¹ The sum of the component factor average may not equal the average for this factor due to rounding.

Table 7. Domestic Trucklot Dockage, 1984 and 1985

Class	1984			1985		
	No. of Samples	Range ¹	Average	No. of Samples	Range ²	Average
HRW	29,342	0.0 - 46.8	1.0	2,765	0.0 - 44.5	1.1
SRW	7,831	0.0 - 42.0	0.9	916	0.0 - 16.9	0.6
WW	12,765	0.0 - 20.5	1.0	412	0.0 - 7.4	0.9
HRS	8,793	0.0 - 17.6	1.0	769	0.0 - 10.0	1.0
DU	2,025	0.0 - 10.7	1.1	125	0.0 - 3.4	0.6
	60,756			4,987		

¹ Approximately 93 percent of trucklots were within the range of 0.0 to 2.0 percent.

² Approximately 92 percent of trucklots were within the range of 0.0 to 2.0 percent.

Table 8. Wheat Crop Quality Reports for Selected States, 1984 and 1985¹

Factor	No. 2 Grade Limit	Kansas		MT, ND, SD, MN			
		HRW		HRS		Durum	
		1984	1985	1984	1985	1984	1985
Test Weight per bushel	58.0	60.4	60.0	60.0	59.2	61.2	60.7
Heat-Damaged Kernels	0.2	X ²	X	X	X	X	X
Damaged Kernels (Total)	4.0	0.2	0.1	0.1	0.3	0.3	0.3
Foreign Material	1.0	0.1	0.2	0.1	0.1	0.1	0.1
Shrunken & Broken Kernels	5.0	2.7	2.7	2.0	1.3	1.3	0.7
Defects Total	5.0	3.0	3.0	2.2	1.7	1.7	1.1
Contrasting Classes	2.0	X	X	X	X	0.4	0.6
Wheat of Other Classes	5.0	X	X	X	X	0.4	0.6
Dockage	N/A	0.7 ³	0.7 ⁴	1.0	0.9	1.2	1.1
Moisture	N/A	11.6	11.8	11.1	12.9	11.5	12.9
Defects (Total) + Dockage	N/A	X	X	3.2	2.6	2.9	2.2
Foreign Material + Dockage		X	X	1.1	1.0	1.3	1.2

N/A—Not Applicable.

¹ Complete quality factor information is not available for White and Soft Red Winter wheats, except White wheat dockage results were reported at 0.8 percent for 1984 and 0.9 percent for 1985.

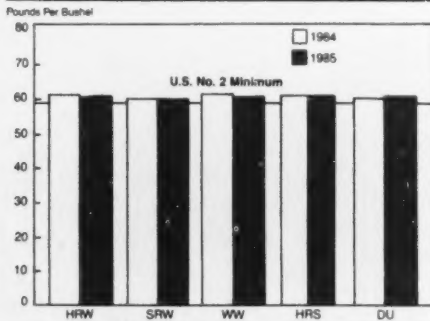
² Not provided in reports.

³ Represents estimate. Actual report on 9,308 cars sampled in 1984 was 24 percent under 0.5 (assumed average 0.25), 58 percent 0.5-0.9 (assumed average 0.70), and 18 percent over 0.9 (assumed average 1.40).

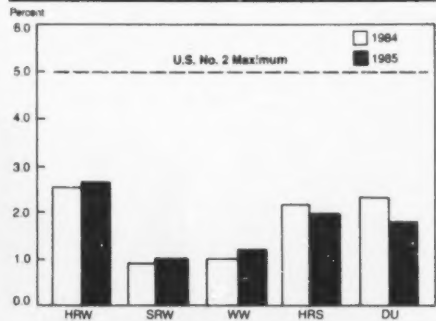
⁴ Represents estimate. Actual report on 12,138 cars sampled in 1985 was 22 percent under 0.5 (assumed average 0.25), 59 percent 0.5-0.9 (assumed average 0.70), and 19 percent over 0.9 (assumed average 1.40).

SOURCES: "Kansas Wheat Quality, 1985," Kansas Crop and Livestock Reporting Service, September 1985. "U.S. Wheat 1985 Crop Quality Report," U.S. Wheat Associates, Inc.

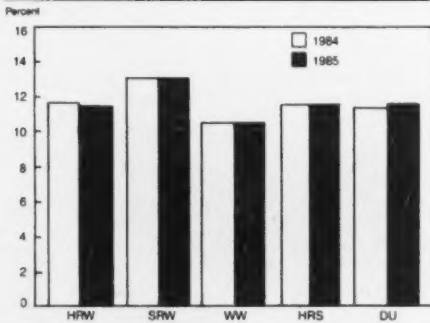
Wheat — Average Test Weight per bushel
1984 —vs— 1985



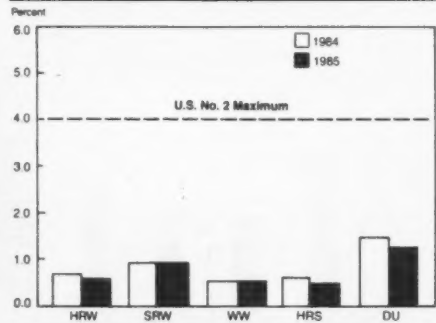
Wheat — Average Shrunken and Broken Kernels
1984 —vs— 1985



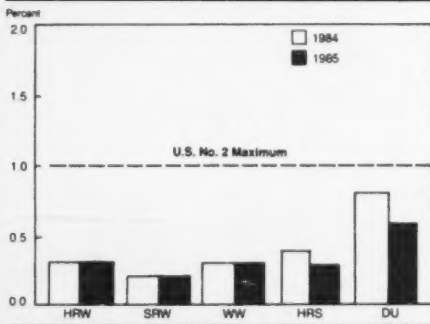
Wheat — Average Moisture
1984 —vs— 1985



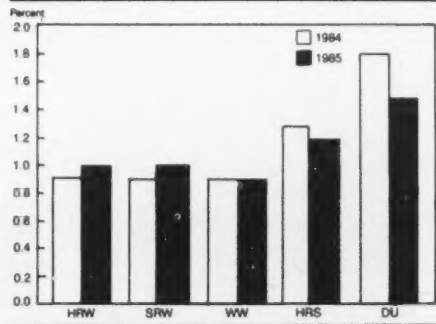
Wheat — Average Damaged Kernels (Total)
1984 —vs— 1985



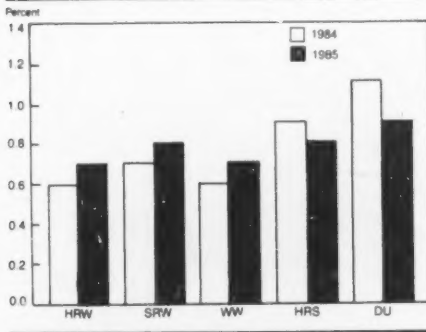
Wheat — Average Foreign Material
1984 —vs— 1985



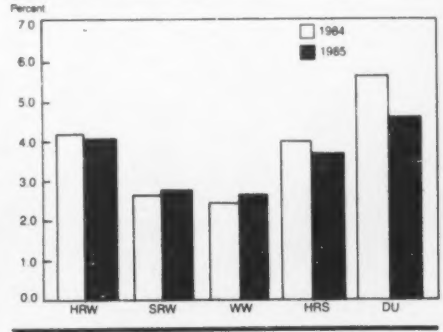
Wheat — Average Foreign Material Plus Dockage
1984 —vs— 1985



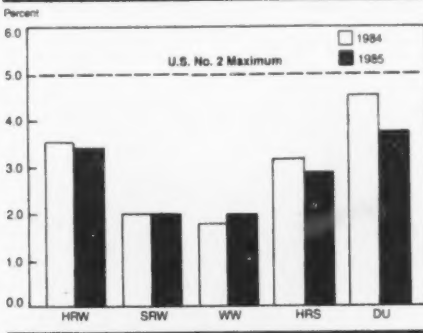
Wheat — Average Dockage
1984 —vs— 1985



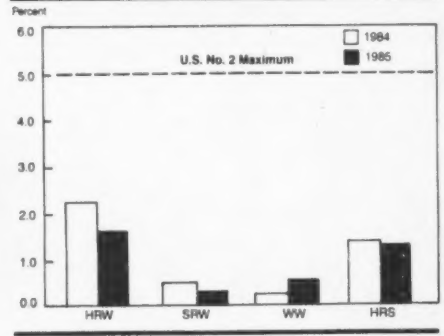
Wheat — Average Defects (Total) Plus Dockage
1984 —vs— 1985



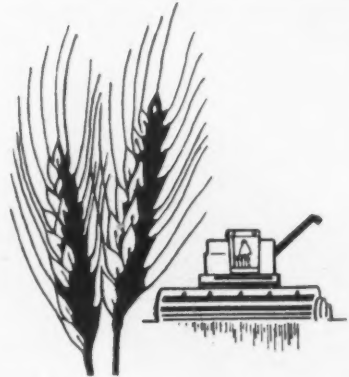
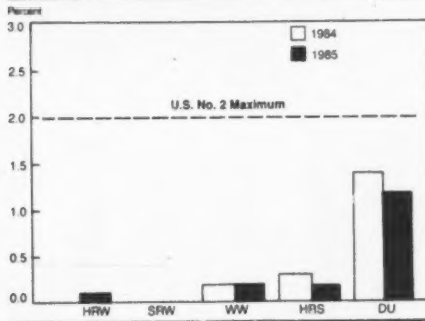
Wheat — Average Defects (Total)
1984 —vs— 1985



Wheat — Average Wheat of Other Classes
1984 —vs— 1985



Wheat — Average Contrasting Classes
1984 —vs— 1985



Definitions

- **Test weight.** Is a determination of the number of pounds of wheat in a Winchester bushel.
- **Heat-damaged kernels.** Kernels, pieces of wheat kernels, and other grains that are materially discolored and damaged by heat which remain in the sample after the removal of dockage and shrunken and broken kernels.
- **Damaged kernels.** Kernels, pieces of wheat kernels, and other grains that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect bored, mold-damaged, sprout-damaged, or otherwise materially damaged in the sample after removal of dockage and shrunken and broken kernels.
- **Foreign material.** All matter other than wheat which remains in the sample after removal of dockage and shrunken and broken kernels.
- **Shrunken and broken kernels.** All matter which can be removed from a test portion of the dockage free sample by use of an approved device.
- **Defects.** Include damaged kernels, foreign material, and shrunken and broken kernels. The sum of these three factors may not exceed the limit for the factor defects (total) for each numerical grade.
- **Contrasting classes** include:
 - Durum, White, and Unclassed wheat in the classes Hard Red Spring and Hard Red Winter wheat.
 - Hard Red Spring, Hard Red Winter, Soft Red Winter, White, and Unclassed wheat in the class Durum wheat.
 - Durum and Unclassed wheat in the class Soft Red Winter wheat.
 - Hard Red Spring, Durum, Hard Red Winter, and Unclassed wheat in the class White wheat.
- **Wheat of other classes.** Consists of the total of all classes other than the predominating class and shall include contrasting classes.
- **Dockage.** Is all matter other than wheat which can be readily removed from a test portion of the original sample by use of an approved device.
- **Moisture.** Water content of grain as determined by an approved device. Effective September 9, 1985, the percentage of moisture in a sample does not affect the numerical grade.
- **Protein** is the protein content of wheat as determined by an approved near infrared reflectance (NIR) instrument calibrated against a Kjeldahl method (% Nitrogen x 5.7). The percentage of protein in a sample does not affect the numerical grade.
- **Grade** is determined by analyzing the physical and biological factors present in the sample. Limits for the grading factors are established for each numerical grade. Grades range from U.S. No. 1 (highest) to U.S. Sample grade (lowest). When a particular grade designation is cited in this report, it includes lots certificated at that grade plus lots certificated with the "or better" designation. For example, a U.S. No. 2 grade designation includes lots which were certificated as "U.S. No. 2" and lots certificated as "U.S. No. 2 or better." Factors that exceed the established limits, except for test weight, lower the grade. The established limits for test weight represent minimum requirements for each grade.

Note: All 1984 and 1985 average factor values contained in this report have been calculated by weighting individual export lot factor averages by volume. Average factor values reported in the 1984 U.S. Export Wheat Quality Report were not weighted by volume. This fact accounts for some differences between factor results reported in that report and 1984 factor results included in this report.

Dr. GILLES. In general, based on the 1985 reports, the 1985 exports show that about 81 percent of the soybeans were exported as grade No. 2 or better; about 96 percent of the wheat exports were No. 2 or better; and all of the corn exports were No. 3 or better.

An examination of the sublots of the wheat shipments is revealing. If the sublots, rather than the entire lots, had been loaded by grade, about 82 percent of the white wheat, 52 percent of the Hard Red Spring wheat, and 18 percent of the Hard Red Winter wheat sublots would have been graded No. 1.

Because of blending and the nonconformity among sublots, many people in fact received better than the No. 2 grade for which they had contracted.

A comparison of the dockage content of wheat delivered from the farms to the elevators with the dockage content of wheat exports emphasizes the need to consider the dockage issue as a system-wide problem. The range and average dockage content in farm truck deliveries is higher than in exports.

When we look at the major quality complaints for the three major grains—wheat, corn and soybeans—for wheat, the complaints are dockage, foreign material, infestation, protein content, and sprout damage.

For corn, it is broken corn and foreign material, infestation and moisture, and for soybeans, it is foreign material and damage.

The weather, in 1984 and 1985, played a significant role in the number of quality complaints. Excessive rains in certain areas resulted in corn and soybean crops with higher moisture contents than previous years.

This, together with the warm weather experienced during the fall and early winter, resulted in some damage and higher moisture content than the buyers expected, but still within the grade limit.

For the past 2 years, soybeans have led the complaint list. We have had few complaints about wheat; only three this fiscal year.

This marketing year, most of the complaints received concerned soybean damage and the associated free fatty acid content.

It may be that our damage interpretive line, while appropriate 10 years ago, is in need of revision. Sound beans have approximately seven-tenths of a percent of free fatty acids; slightly damaged beans have approximately one and a half percent; and damaged beans approximately 4 percent of free fatty acids.

Free fatty acids are not a factor in grades but they are more of a factor from the buyer's standpoint in recent years. So we are considering changes in the interpretive lines.

Dockage is another major factor which primarily affects wheat. To more accurately describe dockage, alternatives to the present system of certificating dockage is being debated. Four alternatives are: One, to make no change, that is, round dockage to the next lowest one-half percent; two, to round to the nearest one-half but split it to quarters; three, to report the dockage to the nearest one-tenth of a percent; and four, to combine dockage and foreign material.

The most support appears to be in reporting dockage to one-tenth of a percent. This has support from producers, importers, and the grain trade.

Critics claim that this will cause excessive costs to the producer. ERS economists say that the cost will be plus or minus one cent a bushel. We would like to submit for the record an Economic Research Service report that addresses this issue.

[The following material was received by the subcommittee:]

ECONOMIC IMPLICATIONS OF ALTERNATIVE METHODS OF CERTIFICATING DOCKAGE IN U.S. WHEAT: A SUMMARY OF RESULTS FOR HARD RED WINTER

(By Mack N. Leath, Agricultural Economist, Economic Research Service, U.S. Department of Agriculture)

CHART I

The alternative methods of dockage certification evaluated in the study are compared and contrasted in Chart I. The current procedure is identified as Method A. The potential for undisclosed dockage is clearly evident in Method A where up to 0.49 of a percentage point of dockage is not certificated.

Method B, which was proposed by FGIS in 1984, would reduce the amount of undisclosed dockage by 50 percent or more. The certificated dockage content using this procedure would result in a more accurate statement of actual dockage content on average since under-reporting on some lots would offset over-reporting on other lots.

In 1985, the FGIS Advisory Committee recommended that FGIS consider certificating dockage in tenths of a percentage point. This procedure will be referred to as Method C in this discussion. The procedure shown in Chart I is the computer rounding procedure used in the analysis. The rounding methods normally used by FGIS would yield slightly different frequency distributions based on dockage content; however, the economic impacts would not be significantly different.

CHART II

The average certificated dockage content of samples inspected at interior markets is shown in Chart II by class of wheat and certification method. The results are based on measured dockage content of 60,760 inbound-truck and submitted-sample inspections during the period of heavy delivery following harvest in 1984. The samples inspected for each class of wheat ranged from about 2,000 for the durum class to over 29,000 for the hard red winter class.

The recorded dockage content of each lot was certificated using the current and alternative methods. The average amount of certificated dockage for each class and certification method were then computed. Overall, certificated dockage using Method A understated true dockage content by 0.25 of a percentage point on average. The average amounts of certificated dockage under Method B and C were accurate estimates of the actual mean dockage contents. The proposed methods would be more equitable for all parties involved in buying and selling wheat in domestic markets.

CHART III

Chart III illustrates how the distribution of hard red winter wheat samples by certificated dockage content at interior inspection points would change if Method B were adopted by FGIS. A majority of the samples currently certified 0.0% level contain more than 0.25 of a percentage point of dockage. These would be certificated at 0.5% dockage using Method B. The decline in the proportion certificated at the 0.0% level would be offset by smaller increases at other levels. The largest increase would occur at the 1.0% certification level.

Under current standards, 70 percent of the lots inspected would require cleaning to avoid a weight reduction or discount. The proportion needing cleaning in order to avoid a weight reduction under Method B would increase to 94 percent.

CHART IV

Chart IV illustrates how the hard red winter wheat samples would be distributed if Method C were adopted for certificating dockage. The median of this distribution was 0.7 percent. The spring wheats (durum and hard red) contained more dockage overall; and the distributions for those classes were less peaked. The soft red winter and white wheat samples were distributed similar to that of hard red winter.

Adoption of Method C would provide an incentive to clean high dockage lots since there would be no incentive to blend the high-dockage lots into cleaner lots. In the case of hard red winter, 5.5 percent of the samples had a dockage content of 2.5 percentage points or more, and the maximum dockage content was 46.9 percent.

CHART V

Chart V presents a comparison of certificated dockage at U.S. ports using the alternative methods of certification by class of wheat. The results for durum and spring wheat are very similar to the findings for interior inspections, an indication that very little cleaning is being performed. Adoption of Method B would increase the average certificated dockage of these classes by 0.3 of a percentage point. The other classes were found to be substantially cleaner at the port in comparison with interior points.

Although the average dockage content of the other classes was similar, Method A understates actual dockage to a greater extent in the case of white wheat. In the case of hard red winter wheat, Method B would increase the average amount of certificated dockage by 0.17 of a percentage point. Method C would fully disclose the actual dockage content.

CHART VI

The distributions of hard red winter exports by level of certificated dockage using Methods A and B are shown in Chart VI. Almost 100% of the inspections that were certificated as "dockage-free" using Method A contains more than 0.25 of a percentage point of dockage and would be certificated at the 0.5-percent level if Method B were adopted. The decline at the 0.0% level of certified dockage was offset by a similar increase at the 1.0% level.

Adoption of Method B would change the blending targets for firms that now blend based on dockage content. This is more evident when we look at the next chart that shows how the samples are distributed when dockage is certificated in tenths of a percentage point (Method C).

CHART VII

The distribution of hard red winter inspection with dockage certificated in tenths of a percentage point is shown in Chart VII. Adoption of Method C would eliminate the incentive that exists to blend on the basis of dockage. If all hard red winter exports were blended to a uniform dockage content, the entire volume could have moved under grade certificates showing a 0.5-percent dockage content under certification Method B.

Adoption of Method B would still permit an exporter to ship "dockage free" wheat if clean lots were segregated in storage and transit or if cleaning was done to lower the dockage content to a level below the 0.25% break point for "dockage free" wheat under Method B.

CHART VIII

The relationships among the average discounted prices for hard red winter wheat at U.S. ports under alternative dockage certification procedures and market behavior scenarios are illustrated in Chart VIII. In a naive market, buyers and sellers are assumed to enter market transactions based on the expectation that the certificated dockage is the maximum amount of dockage in the lot under all methods of certification. In the average market, prices reflect the expectation that undisclosed dockage will average 0.25 of a percentage point when Method A is used for certification. Undisclosed dockage is assumed to average 0.1 of a percentage point when Method B is used for certification. In the sophisticated market environment, Method A is assumed to understate true dockage by 0.44 of a percentage point. Method B would allow about 0.2 of a percentage point of undisclosed dockage, and prices reflect the expectation that that amount of undisclosed dockage is present. The average discounted prices under Method C are the same for all market behavior scenarios since undisclosed dockage is not present.

CHART IX

The discounted price for each lot inspected was calculated for each certification method and market behavior scenario. The net impacts on price per bushel from adopting Methods B and C were computed by subtracting the discounted price for Method A from the discounted price under each of the alternative methods. The net

impacts of adopting Methods B and C on hard red winter wheat prices at interior and export points are shown by market behavior scenario in Chart IX. The samples inspected at interior points were assumed to be representative of inventories; therefore, the relative prices at interior points were also used to estimate the impacts on carryover stocks.

The price impacts would be greater in the naive market environment because certificated dockage is higher for Methods B and C and traders assume that certificated dockage under current standards is an accurate estimate of true dockage.

The average market recognizes that undisclosed or hidden dockage will average about 0.25 of a percentage point under the current standards. As a result, adoption of Method C would have an average impact of less than one tenth of a cent per bushel. Prices were lower under Method B because the potential for undisclosed dockage was recognized in the pricing procedure.

A positive price impact indicates the assumed amounts of undisclosed dockage under Methods A and B were greater than what was present in the samples analyzed.

CHART X

The average change in prices shown in Chart IX were then multiplied by the volumes used domestically, exported, and carried over in storage for the 1984-85 marketing year to estimate the overall impact. The results for the hard red winter class are shown in Chart X. In the average market scenario, the amount of undisclosed dockage assumed for Method A was about equal to what actually existed in the samples inspected, and as a result, the impact of adopting Method C would be small.

The estimated impact of adopting Method B at export locations was small under the average market scenario since the assumed amount of undisclosed dockage was actually present in the samples inspected. The impact on inventory values is a one time occurrence.

CHART XI

The per-unit price changes for each class of wheat were weighted by the appropriate volume figures to estimate average price changes for all classes. Those results are shown in Chart XI. The per-unit price changes are similar to those presented for the class hard red winter. Under average market conditions, the impact of adopting Method C would be less than one tenth of a cent per bushel in all market sectors. The impact of adopting Method B would average less than four tenths of a cent per bushel.

In the naive market behavior scenario, the impact of adopting either method would average less than one cent per bushel.

CHART XII

Estimates of the total change in value of wheat under each market behavior scenario, certification method, and market sector are shown in Chart XII. The naive market scenario represents the maximum impact and the combined impact would total \$36 to \$38 million depending upon certification option. At the other extreme, adoption of Methods B or C in a sophisticated market environment would have a positive impact on wheat prices. Again the average market scenario seems to be the most realistic, and under those conditions the impact of adopting one of the alternatives would be \$13 million or less.

The average market scenario supports the idea that changing the method of certifying dockage will not change the total value of the wheat crop. The value of a ton of wheat is determined by the market value of products that can be produced from that lot. Eliminating hidden dockage will increase the market price of clean wheat which will offset the weight adjustment for a higher level of certificated dockage.

CHART I

A COMPARISON OF ACTUAL AND CERTIFICATED DOCKAGE
USING ALTERNATIVE METHODS OF CERTIFICATION

Certification procedure	Range of actual dockage	Certificated dockage
Method A 1/	0.00% to 0.49%	not stated
	0.50% to 0.99%	0.5%
	1.00% to 1.49%	1.0%
	1.50% to 1.99%	1.5%
	etc.	etc.
Method B 2/	0.00% to 0.25%	not stated
	0.26% to 0.75%	0.5%
	0.76% to 1.25%	1.0%
	1.26% to 1.75%	1.5%
	etc.	etc.
Method C 3/	0.00% to 0.04%	not stated
	0.05% to 0.14%	0.1%
	0.15% to 0.24%	0.2%
		.
		.
	0.95% to 1.04%	1.0%
	etc.	etc.

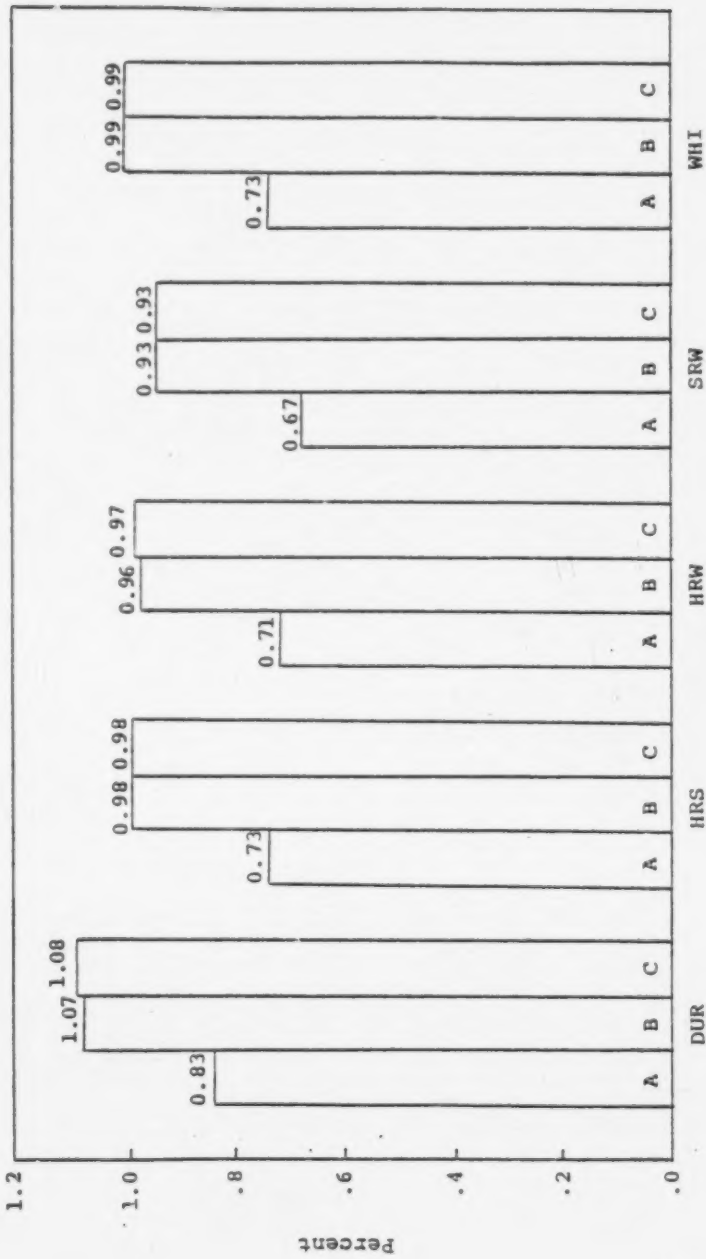
1/ Procedure adopted in 1964.

2/ Procedure proposed in 1984.

3/ Procedure recommended by the FGIS Advisory Committee
in 1985.

CHART II

INSPECTIONS AT INTERIOR MARKETS: AVERAGE CERTIFICATED DOCKAGE CONTENT BY CLASS
OF WHEAT AND CERTIFICATION METHOD, UNITED STATES, 1984



Class of Wheat

CHART III

HARD RED WINTER WHEAT: A COMPARISON OF THE DISTRIBUTION OF INSPECTIONS
AT INTERIOR MARKETS BY LEVEL OF CERTIFIED DOCKAGE UNDER ROUNDING
METHODS A AND B, 1984

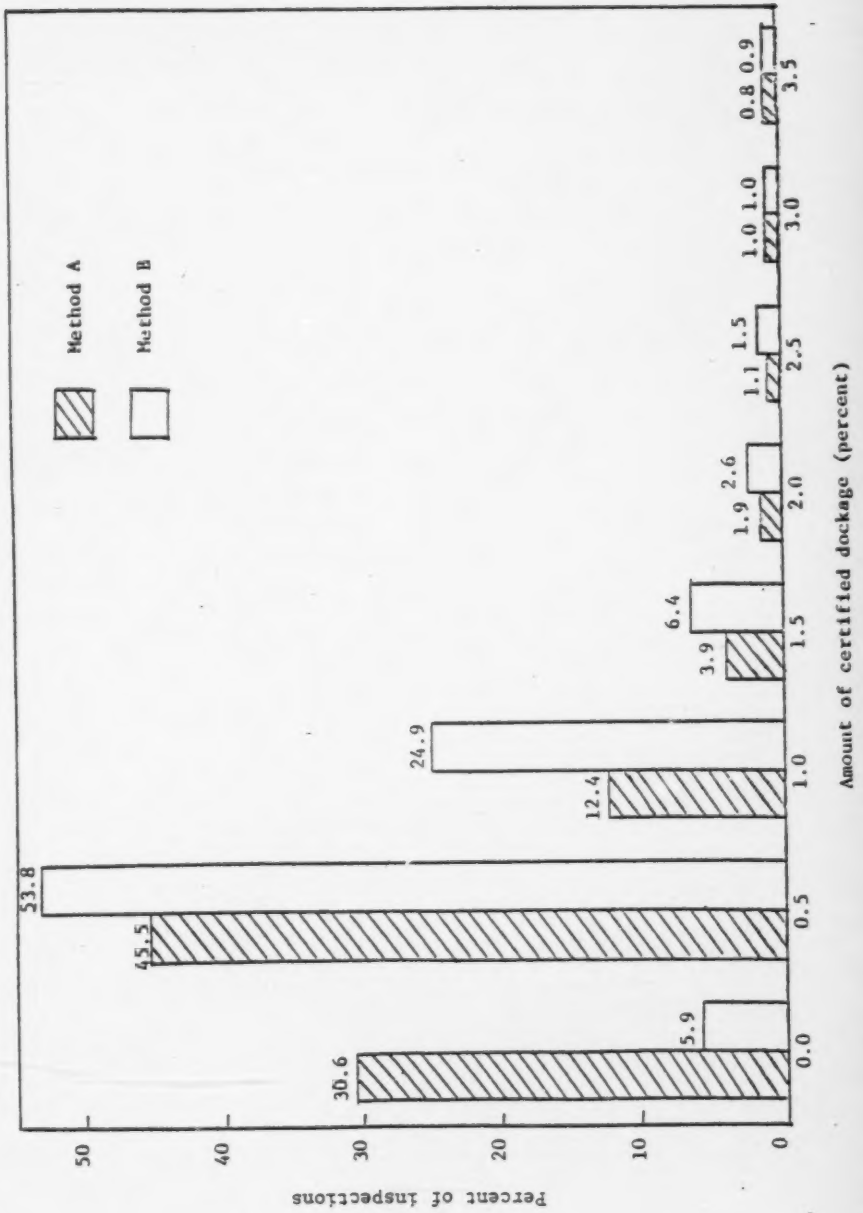


CHART IV
HARD RED WINTER WHEAT: DISTRIBUTION OF SUPERVISED INSPECTIONS AT INTERIOR
MARKETS BY DOCKAGE CONTENT OF SAMPLES, 1984

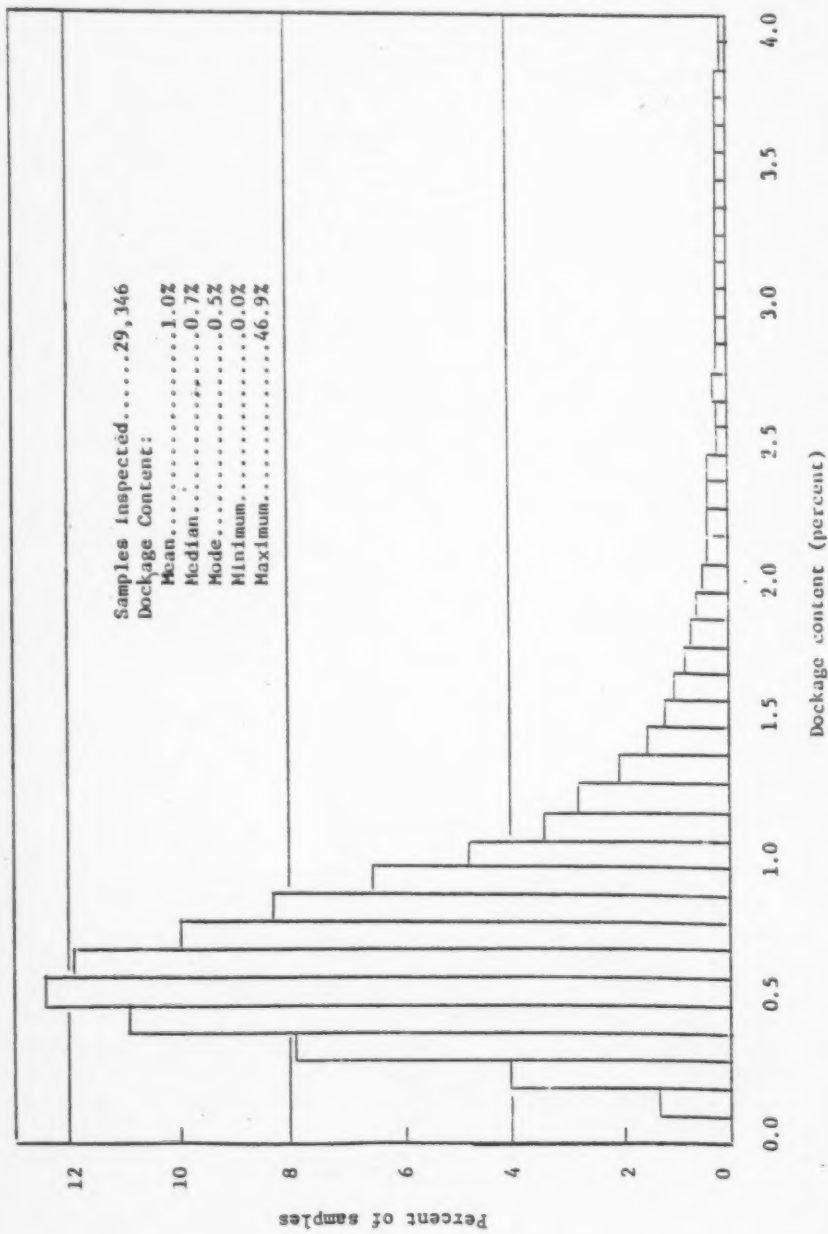


CHART V

INSPECTIONS AT EXPORT LOCATIONS: AVERAGE CERTIFICATED DOCKAGE CONTENT BY CLASS
OF WHEAT AND CERTIFICATION METHOD, UNITED STATES, 1984

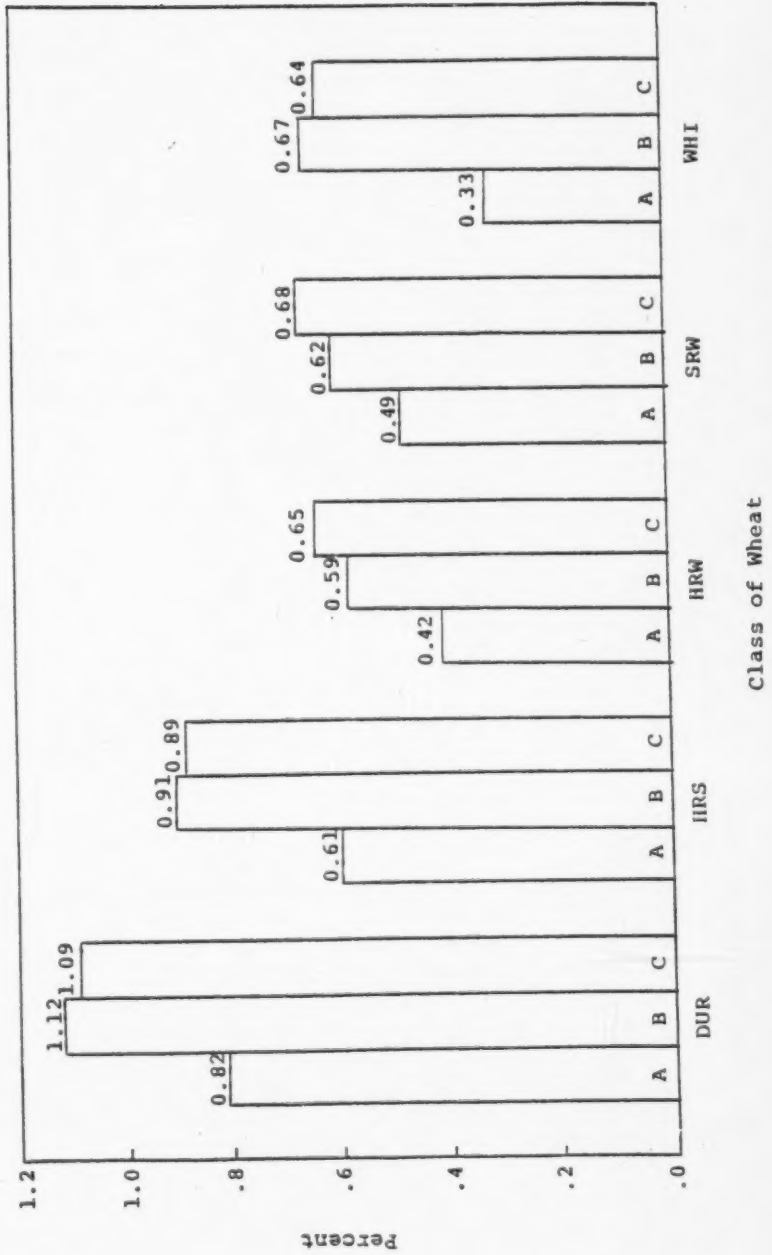
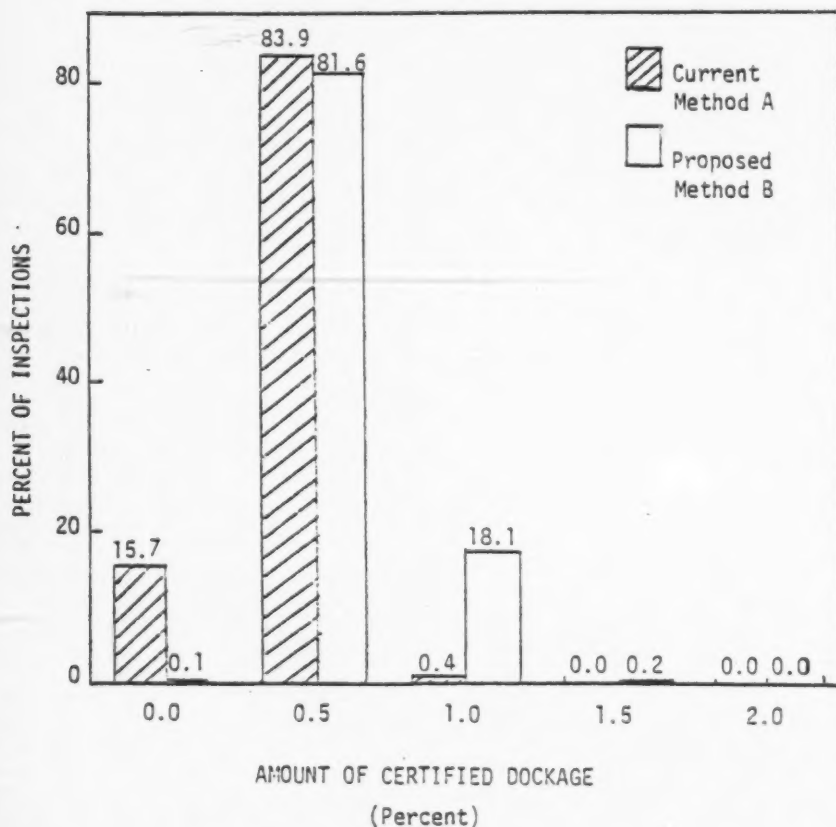


CHART VI

HARD RED WINTER WHEAT: PERCENT OF INSPECTIONS
FOR EXPORT WITH SPECIFIED AMOUNTS OF CERTIFIED
DOCKAGE UNDER METHODS A AND B, 1984



HARD RED WINTER FACTS (1984)

- Actual dockage loaded.....143,744 tons (0.6%)
- Certified under current method A..... 94,233 tons (0.4%)
- Certified under proposed method B.....131,115 tons (0.6%)
- Increase in amount certified 36,882 tons (0.2%)

CHART VII

HARD RED WINTER WHEAT: DISTRIBUTION OF EXPORTS, BY PERCENTAGE DOCKAGE
CONTENT, ROUNDED TO 0.1-PERCENT INCREMENTS, UNITED STATES, 1984

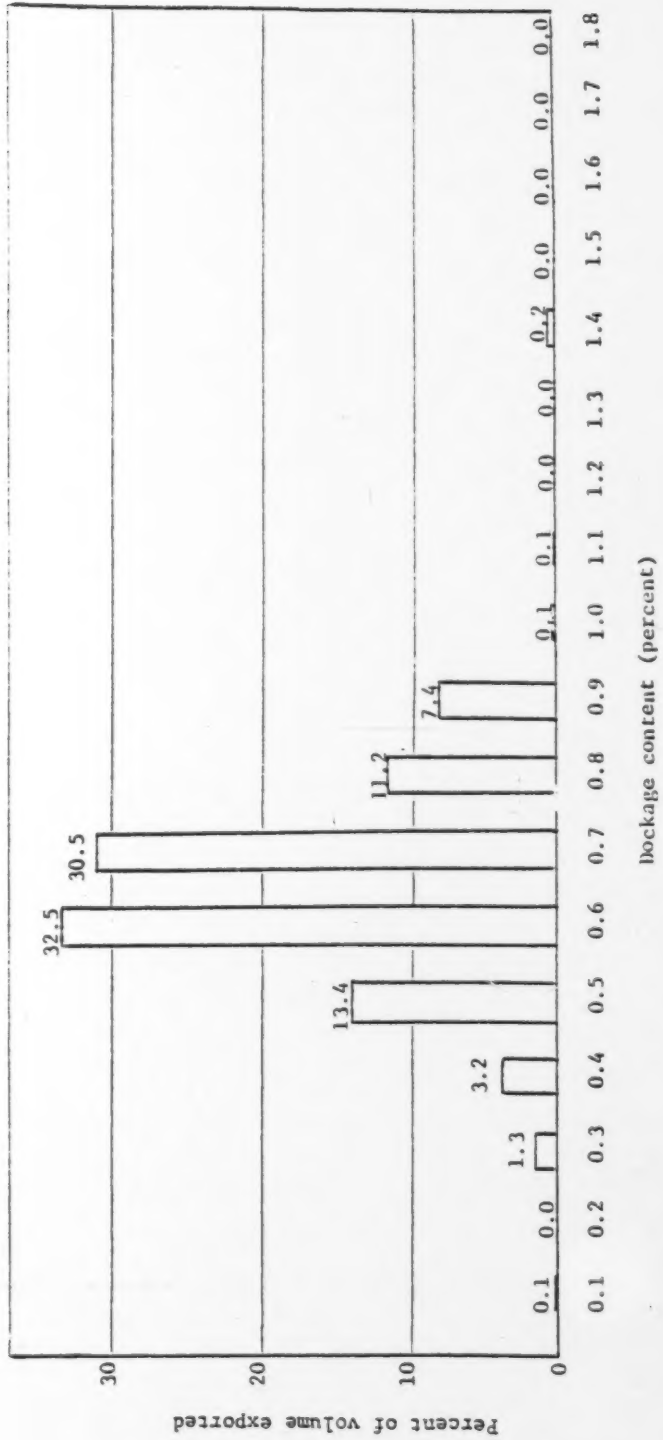


CHART VIII

HARD RED WINTER WHEAT: AVERAGE DISCOUNTED PRICES
AT U.S. PORTS UNDER ALTERNATIVE DOCKAGE
CERTIFICATION PROCEDURES AND MARKET
BEHAVIOR PATTERNS, 1984/85

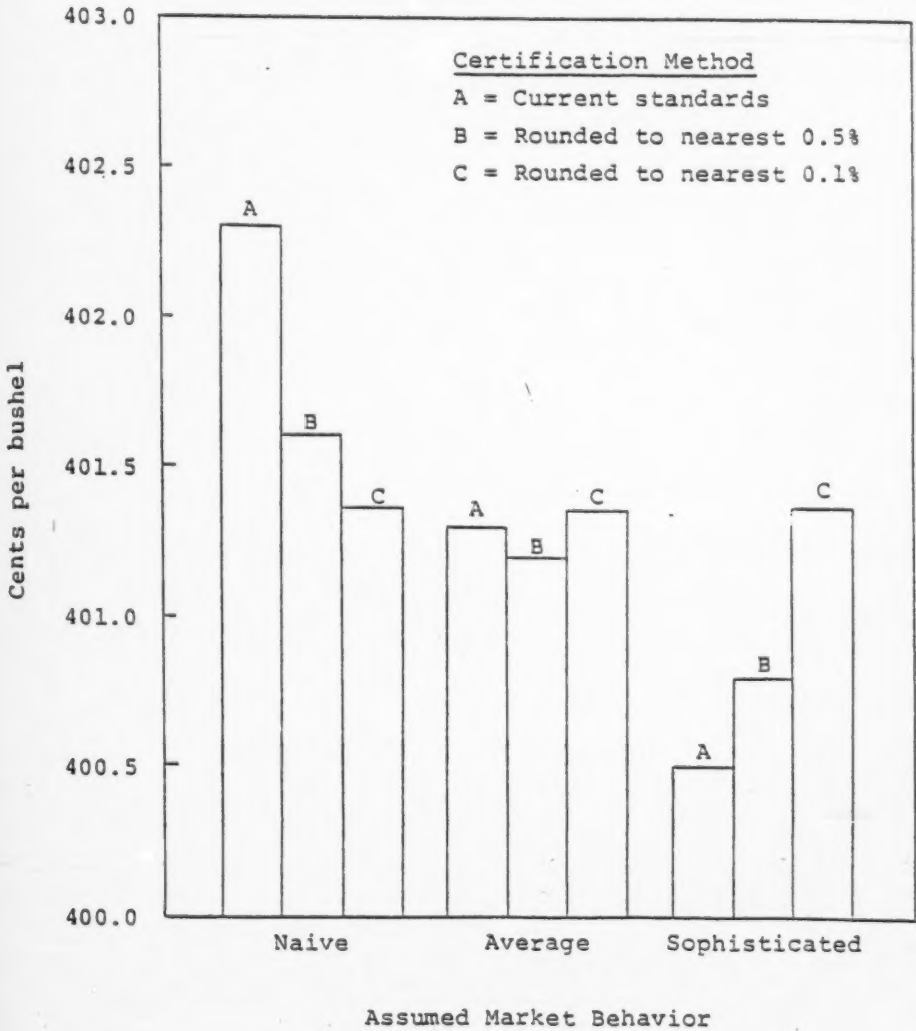


CHART IX

HARD RED WINTER WHEAT: ESTIMATED PER UNIT CHANGE
IN VALUE RESULTING FROM THE ADOPTION OF DOCKAGE
CERTIFICATION METHODS B AND C BY MARKET SECTOR
AND MARKET BEHAVIOR, 1984/85 MARKETING YEAR

Market sector and certification method	Market behavior scenario		
	Naive	Average	Sophisticated
	<u>cents per bushel</u>		
INTERIOR MARKETS			
Method B	-.934	-.373	-.037
Method C	-.961	-.026	+.685
EXPORT REGIONS			
Method B	-.680	-.074	+.289
Method C	-.928	+.082	+.849
INVENTORIES			
Method B	-.934	-.373	-.037
Method C	-.961	-.026	+.685

CHART X

HARD RED WINTER WHEAT: ESTIMATED TOTAL CHANGE IN
VALUE RESULTING FROM THE ADOPTION OF DOCKAGE
CERTIFICATION METHODS B AND C BY MARKET SECTOR
AND MARKET BEHAVIOR, 1984/85 MARKETING YEAR

Market sector and certification method	Market behavior scenario		
	Naive	Average	Sophisticated
	<u>thousands of dollars</u>		
INTERIOR MARKETS			
Method B	-5,401	-2,096	-208
Method C	-5,249	-146	+3,850
EXPORT REGIONS			
Method B	-4,515	-491	+1,919
Method C	-6,162	+538	+5,637
INVENTORIES			
Method B	-6,697	-2,674	-265
Method C	-6,890	-186	+4,911
TOTAL			
Method B	-16,613	-5,261	+1,446
Method C	-18,301	+206	+14,389

CHART XI

ALL WHEAT: ESTIMATED WEIGHTED AVERAGE PER UNIT CHANGE IN VALUE
 RESULTING FROM THE ADOPTION OF DOCKAGE CERTIFICATION
 METHODS B AND C BY MARKET SECTOR AND MARKET
 BEHAVIOR, 1984/85 MARKETING YEARS

Market sector and certification method	Market behavior scenario		
	Naive	Average	Sophisticated
	<u>cents per bushel</u>		
INTERIOR MARKETS			
Method B	-.970	-.385	-.045
Method C	-.971	-.044	+.674
EXPORT REGIONS			
Method B	-.846	-.242	+.120
Method C	-.981	+.025	+.789
INVENTORIES			
Method B	-.968	-.387	-.039
Method C	-.996	-.027	+.709

CHART XII

ALL WHEAT: ESTIMATED WEIGHTED TOTAL CHANGE IN
VALUE RESULTING FROM THE ADOPTION OF DOCKAGE
CERTIFICATION METHODS B AND C BY MARKET SECTOR AND
MARKET BEHAVIOR, 1984/85 MARKETING YEARS

Market sector and certification method	Market behavior scenario		
	Naive	Average	Sophisticated
	<u>thousands of dollars</u>		
INTERIOR MARKETS			
Method B	-11,199	-4,444	-520
Method C	-11,214	-505	+7,788
EXPORT REGIONS			
Method B	-11,521	-3,299	+1,638
Method C	-13,360	+337	+10,752
INVENTORIES			
Method B	-13,790	-5,509	-549
Method C	-14,181	-384	+10,100
TOTAL			
Method B	-36,510	-13,252	+569
Method C	-38,755	-552	+28,640

CHART XIII—MAJOR IMPLICATIONS OF METHOD B

Reduce undisclosed dockage by 50 percent.
 Improve pricing efficiency.
 Alter blend targets.
 Reduce existing incentive to blend dockage into clean grain.
 Economic impact would total \$13 million under average market conditions.
 Impact on inventory holders would be a one-time impact.
 Maintain the option of delivering "dockage free" wheat under U.S. grade certificates.
 Adoption of method B will not hinder efforts to develop and maintain foreign markets.

CHART XIV—MAJOR IMPLICATIONS OF METHOD C

Eliminate undisclosed dockage on grade certificate.
 Maximize pricing efficiency.
 Provide a greater incentive to clean high-dockage lots.
 Eliminate existing incentive to blend dockage into clean grain.
 Remove subsidy on producers who deliver high-dockage wheat.
 Provide buyers with greater access to low-dockage wheat.
 Economic impact would be small since the total value of annual production would change very little.
 Adoption of method C may improve the competitive position of U.S. wheat in foreign markets.

Dr. GILLES. Another claim is that the dockage tester is not accurate. FGIS tests show accuracy in the one-tenths are capable to 8 percent dockage. The standard deviation of over 5,000 tests is 0.08 percent. We do not believe that every dockage tester in the United States is capable of this accuracy at the present time, but with a few needed repairs and maintenance, they could be.

Another suggestion which appears to have broad support includes reporting protein content on a fixed moisture basis of 12 percent.

The North American Export Grain Association is conducting a series of workshops debating these issues. Their recommendations are due to the USDA in May, and other groups have also suggested changes.

For the dockage issue, we expect that rulemaking will begin, comments will be sought, and the final rule could be effective in May 1987, so that the total wheat crop may be graded on one set of standards.

The improvement of corn quality is also being debated. Consideration there is given to the economic and technical feasibility of separating the broken corn and the foreign materials into two components. While broken corn has a nutrient value, the foreign material, largely cobs, stalks, and stems, is less desirable from the buyer's viewpoint.

In a broad perspective, the current standards are designed to describe the physical and the biological characteristics of grain at the time of inspection. They do facilitate the marketing of grain by providing a common language for merchandising. They are applied voluntarily, and uniformly, at inspection points throughout the United States. Periodically, the standards have been reviewed and revised and some 326 changes have been made since they were established.

They are considered consensus standards which represent the needs and desires of the U.S. marketing system and are changed only after full participation in the rulemaking process.

The grain industry has continued to innovate and to adopt new technologies, such as the use of computers and programmable controllers for blending.

The challenge is to effectively use this new technology to maintain quality, condition, and uniformity from the farm to the user.

I believe more attention to quality control to maintain physical and biological conditions is an achievable objective for the grain industry.

We who are responsible for Government services stand ready to assist in improving the U.S. competitive position worldwide. Mr. Chairman, this concludes the Department's comments.

Senator ANDREWS. Thank you very much, Dr. Gilles, and I appreciate the fact that you now say that our bill is not strong enough, because as you know, that bill went through your shop, and that was about as much as you indicated we could get the administration and your shop to support. So that shows a movement in the right direction over the last few months and we welcome that.

Why have the number of foreign complaints been increasing lately?

Dr. GILLES. I think that quality and price are interrelated, and the general price of our grain has been higher than that of competition. So if people are buying from us and paying more, they consider that they want better quality. The two are interrelated.

Senator ANDREWS. Is this increasing trend of the past couple of years expected to continue?

Dr. GILLES. Well, as you know, the price situation is changing, but I think that because of the fact that there are additional suppliers in the world market, there will be continual increases in competition and continual pressure on improved quality.

Senator ANDREWS. What has been the nature of the complaints?

Dr. GILLES. The complaints primarily are related to crops. If you look at an ongoing thread, the foreign material content is a thread that you see in corn, wheat, and soybeans. In the case of wheat, which is used primarily as a food grain, the additional concern there would be in materials such as the protein content, such as insects, and the like. In the case of soybeans, damage has been a major issue in the last 2 years. In the prior 8 years, damage was not an issue, as foreign material.

So it changes. The complaints change with the nature of the product we present, and the product changes with the nature of the weather.

Senator ANDREWS. Doctor, we in the farm bill, directed that the Office of Technology Assessment do a study, and that is coming out soon, as we just found out from Congressman Evans.

We also had a request for GAO to study it. The committee felt that OTA would be able to do a better job than GAO. Is there any reason that these two groups could do a better job of assessing the situation than those of you in the Federal Grain Inspection Service?

Do they have any expertise, shall we say?

Dr. GILLES. I think the matter is not necessarily the expertise. As I understand the Grain Standards Act, under which we have authority today, our concern primarily is in the area of assessing the biological and the physical condition of the grain. I think the

"arms of Congress" that you mentioned, both OTA and GAO, have additional expertise that we do not have. In the area of economics, they have a broader area of responsibility. So, from that standpoint, we welcome their reports because additional perspective may well be thrown on this issue.

Senator ANDREWS. Well, the GAO report is essentially done. There has been nothing startling or new in that report, as I understand.

Dr. GILLES. I am not at liberty to discuss it. I have seen a draft, but it is up to the GAO to release it.

Senator ANDREWS. That is true. But as far as you know, they have not found something out that you were unaware of?

Dr. GILLES. No, sir; they have not.

Senator ANDREWS. That is the point I wanted to make. Now, earlier, I had mentioned this shipment of beans to the People's Republic of China, and then one to a Greek destination, where they found that storm-damaged beans had been blended in with good quality beans, and the market ended up, the grade certificate ended up No. 2 beans.

Now, Dr. Gilles, as an expert in grain grading, were those farmers out there paid for No. 2 soybeans, since that is what their soybeans ended up being billed to the foreign purchaser?

Dr. GILLES. May I ask for clarification, Mr. Chairman. Are you speaking—

Senator ANDREWS. You are our "resident grain expert." Now we have heard of two shiploads of beans, and because of the way of slipping, sliding and ducking around grain inspection standards, we have been told that some storm-damaged beans from the Southeast, because of a excessively rainy harvest, were blended off with No. 2 beans.

We now are having complaints from the customer, pretty severe complaints, even though they technically met your grain standard.

Now you understand grading; you understand local elevator conditions. Could you share with this committee your assessment. Do you feel those farmers were paid as much for those storm-damaged beans as they were paid for their No. 2 beans that they harvested before the rains hit?

Dr. GILLES. There is a distinct possibility, as you said in your opening statement, that the storm-damaged beans were sold at a much lower price—

Senator ANDREWS. That is right.

Dr. GILLES [continuing]. Than good quality beans. This is a market reflection.

Senator ANDREWS. And how much of those storm-damaged beans could be blended with good quality beans, and still meet the grain standards, in your estimation?

Dr. GILLES. It would be difficult to give you a precise answer because the quality of the damaged beans would have to be known, because of the several factors in the grades that would have to be met.

I think there is also a possibility that there may have been some No. 1 quality beans in that blend. That is part of our system.

Senator ANDREWS. But just off the top of your head, old friend, what percent of storm-damaged beans would you expect were able

to be blended with these No. 1 and No. 2 grade beans? And incidentally, there is no difference in price paid for No. 1 beans and No. 2 beans, essentially, out in the countryside, but there is about a \$3 difference between the storm-damaged beans and No. 2 beans.

Am I not essentially correct there?

Dr. GILLES. I believe you are.

Senator ANDREWS. Ten percent; 15 percent? What would you say?

Dr. GILLES. It really depends on the quality of all the components of the system.

Senator ANDREWS. That is right. But just make a, as we say in the country, an "outhouse" guess.

Dr. GILLES. An "outhouse" guess would be a backhouse guess of maybe 5 to 10 percent.

Senator ANDREWS. So what you are telling us is that a grain elevator could have plugged that load with 10 percent of beans that he paid 90 cents a bushel for, and in essence, ends up getting \$5.40 or so for beans that a farmer was paid about 90 cents for?

Dr. GILLES. It is a possibility.

Senator ANDREWS. That is right, and that is what we are driving at because that shows the levels of profits that can be made by an unscrupulous exporter taking advantage of the system as it exists.

Now follow that up with what can be done to our grain standards to prevent that from happening, so that we do not get the complaints from the Chinese customer, or the Greek customer.

Dr. GILLES. Well, I am sure that you are well aware of the fact that the Federal Grain Inspection Service finds itself that object "between the rock and the hard spot" very often in these types of issues.

Senator ANDREWS. Sure. And that is why we have got you for our leadoff witness, because you are the technical expert, old friend.

Dr. GILLES. I recognize that, and I recognize that is why you have this group. However, I think you also have to recognize, that as you look at the issue of blending, you have to, first of all, assess what the quality characteristics are. This can be done within the elevator. We are not involved in that. The second point that I think it is important to recognize is, that as the Grain Standards Act is written, it is permissive to use the official standards within the United States. It is obligatory to use the official standards as grain is exported from the United States.

So, the reason I find it difficult to answer specifically some of your questions is, we honestly do not have all the data, or all of the input about what moves within the domestic market, because people may use our service, if they choose.

Senator ANDREWS. Doctor, did you get the complaints about these cargoes of soybeans I am referring to?

Dr. GILLES. Yes; we did.

Senator ANDREWS. Who shipped them?

Dr. GILLES. I am not sure which cargoes, the ones to—

Senator ANDREWS. Well, there was one to China and one to Greece that I am aware of.

Dr. GILLES. China, yes. I am not sure—may I ask Dr. Shuey?

Senator ANDREWS. Sure. That is why you bring backup people.

Dr. SHUEY. The consignee was Toepfer International. It was shipped out of two different export elevators.

Senator ANDREWS. There were two shipments to China, weren't there?

Dr. SHUEY. Yes.

Senator ANDREWS. Two boatloads to China, and they were both shipped by the same firm?

Dr. SHUEY. They were both shipped by the same firm but out of two different export elevators, not their own.

Senator ANDREWS. Who shipped them?

Dr. SHUEY. Toepfer International.

Senator ANDREWS. Who shipped the Greek one?

Dr. SHUEY. I do not recall, offhand.

Senator ANDREWS. Well, the point is, you are aware of the complaint. Earlier on, we had a discussion about "rounding down" instead of "rounding up." What do you think of that as a concept?

Dr. GILLES. I would prefer that we report accurately, and this is why we favor the idea, in the case of dockage, for example, of measuring it and reporting it to the nearest tenth of a percent.

Senator ANDREWS. A tenth of a percent.

Dr. GILLES. Yes. There is an error inherent in sampling; there is an error inherent in measurements. So I think we can operate in that range quite well. To "round down," as we are, to the nearest one-half a percent, I think that is underreporting, but I wonder, really, if it is appropriate to "round up" and place us in an adverse position.

I think it would be much more appropriate to report the chips as they are.

Senator ANDREWS. In other words, you will address the issue of "rounding up" to one of changing the dockage expressed in a tenth of a point instead of a half a point?

Dr. GILLES. Yes, sir, and actually measuring it, and reporting it as it is.

Senator ANDREWS. Yes.

Dr. GILLES. Let the market determine whether it is good or bad.

Senator ANDREWS. That is fine. But you recognize the problem in rounding up; you just have a different solution than the solution of rounding down.

Dr. GILLES. Yes, sir.

Senator ANDREWS. You also, as a darn good cereal technologist, understand that grain is a living organism; it has got a live and viable part there that is ready to grow, if it is given that opportunity.

How do we address the issue of making sure that the cargo, when it arrives, such as 2 weeks after being loaded, having spent those 2 weeks in a humid, warm atmosphere, is in the same condition as it is when it is loaded?

Can you do that, or can you assure that protection without having some type of prohibition against blending of a high moisture number of bushels with a number of low moisture bushels? As I understand my agronomy and my basic agricultural science, that is going to create moisture migration and that moisture is going to move until it runs into a plug of fines, or whatever else happens to

be in that load, and then all hell breaks loose. How do you stop that?

Dr. GILLES. A very interesting point. I think one is to measure as accurately as you can the moisture content, because as you very correctly indicate, as far as long-term storage, and even short-term storage is concerned, the moisture is very critical. Three factors: Moisture, temperature, and time are important.

You can have fairly high moisture grain if you handle it quickly, dry it, whatever; but if you put grain into a vessel, and the grain content varies significantly, there is a distinct possibility that the high-moisture grain can be clumped together, and when that vessel arrives at some foreign destination, say, 1, 2, or 3 weeks later, molds could be present. The molds are on the grain; the high moisture provides a nice atmosphere for growth.

I think one of the points that we should be very mindful of is to keep the moisture content within acceptable limits.

Senator ANDREWS. Well, you can keep it within acceptable limits according to today's grade standards by blending some 16 percent moisture grain, with some 11 percent moisture grain. But you just pointed out that that creates havoc. Now that technically gives you the grade standard that allows you to get a No. 2 grain with a proper 13½-percent moisture, and everything is hokey-dokey, until that ship arrives at its destination.

Dr. GILLES. Right.

Senator ANDREWS. Now, are you telling the committee that we are going to have to get some regulation against blending of types that are that much different, in order to protect the quality of the grain during the 2- to 3-week ocean voyage?

Dr. GILLES. I do not know that we are telling the committee that we have to restrict blending. I think we should recognize that we can blend if we blend thoroughly. We need to have a very homogeneous blend.

I think part of the problem has been that there are occasions when wet grain—high moisture, if you wish—is not blended thoroughly with low moisture grain. People saying, well, I have mixed the 16 and the 11 percent—as you used in your illustration—which, on the average, should be an acceptable limit.

But they may have put the 16 in and not thoroughly blended it with the 11, and as a consequence, the moisture did not migrate; it stayed in clumps, and the high-moisture grain, under those circumstances, would probably go out of condition. The other side of that coin: I think we need to measure more accurately the moisture content. To this end, we have several research contracts outside of the Department to measure grain in a continuous fashion and by single kernel characteristics. Because you will find, even on a cob of corn, for example, the moisture will vary significantly from the top to the bottom of that cob.

So, the problem is rather difficult, primarily from the standpoint that we need to have the average moisture within acceptable limits.

Senator ANDREWS. But Dr. Gilles, at the present time, do you have, in the Federal Grain Inspection Service, the ability to see that that cargo, once it is placed in the ship, does have that uniformity of blend that you talked about, as extremely necessary?

Dr. GILLES. No; we do not.

Senator ANDREWS. No; that is the point. You feel that because you do not have the ability to police, shall we say, that uniformity of blend, that the cargo may well be in a totally different condition 3 weeks later, at destination, than it was when you issued the grain certificate at port of origin?

Dr. GILLES. That is distinctly a possibility.

Senator ANDREWS. It is reported that the Federal Grain Inspection Service has reduced personnel by 60 percent, from 1980 to 1985. Are there more cuts coming, and are those cuts damaging to the work that you are doing?

Dr. GILLES. There probably are more cuts coming because Congress saw fit to place us on a user-fee basis in 1981. About 85 percent of our revenues come from user fees at the present time.

So, as exports have declined, the need for our services have declined, and the numbers of people have been decreasing. We do not feel that the loss of personnel, however, has adversely affected our services.

Senator ANDREWS. Well, that is the key sentence, and as I recall, you testified before this subcommittee a year or so ago, that on a user-fee basis you would get the revenue as the number of bushels or tons of grain were moving out, so you could maintain that high quality standard that you wanted to maintain. And you feel that you have been able to maintain that, even though there have been fewer personnel?

Dr. GILLES. Yes, sir. I think we have increased productivity. We use more automatic equipment, and we are using scientific techniques rather than personnel in many instances, and I think the quality of the service has been maintained.

Senator ANDREWS. As I understand, during the 1970's, some 126 indictments were handed down and 97 people pleaded guilty because of transgressions in grain grading. Has that indictment level continued at about the same level, or, has it changed?

Dr. GILLES. It has changed substantially. There have been no indictments during the last 5 years, that I am aware of. There have been administrative actions taken against people who have acted inappropriately, but I think the indictments occurred as a result of actions prior to the 1976 revision of the Grain Standards Act, and changes, both of authority and the mode of operation of the Federal Grain Inspection Service have, I believe, substantially reduced the possibility of transgressions of this nature.

Senator ANDREWS. Do you feel that there is a need for further change in the grain standards, other than changing from a half a percent of dockage to a tenth of a percent of dockage, which you mentioned earlier?

Dr. GILLES. Yes, and we are considering these changes, some of which I mentioned today. I think the Grain Standards Act, in section 4, very clearly indicates, that the change in standards are permitted insofar as the nature of the trade warrants and will permit, and I think the attitude is, at the present time such, that additional changes should be considered and effected.

Senator ANDREWS. Can you provide at this point in the record—that means, can you provide within a week to the committee, those suggested changes from your Department?

Dr. GILLES. We can provide those changes we are currently contemplating.

[The following material was received by the subcommittee:]

POSSIBLE CHANGES IN THE OFFICIAL U.S. STANDARDS AND PROCEDURES FOR GRAIN

The Federal Grain Inspection Service currently is reviewing a number of substantial changes in the grain standards and procedures. These changes are intended to improve the marketing quality of grain. Some changes are in the official review process while others are being tested for suitability.

In general, proposed changes in the official standards must be published in the **FEDERAL REGISTER**. Based upon the comments received, final rulemaking is published and the change (if adopted) generally becomes effective one year after publication.

Conversely, changes in procedures which implement the standards are of a technical nature and need not go through the rulemaking process. Sufficient notice is given to interested parties regarding these changes in order that the changes are accomplished in an orderly fashion.

The following outline changes being considered:

GENERAL—Standardize language and promote uniformity for all grain standards; establish uniform tolerances for insects in all grains; revise the certification and rounding procedures for dockage in applicable grains; revise the ship loading plans.

BARLEY—Add protein as an official test, reported on a constant moisture basis; change the current sieve for determining "thin" barley; discontinue the "malting" designation by varieties.

CORN—Separate the current single factor broken corn and foreign material (BCFM) into two factors; tighten the interpretation and reduce the maximum limit for the heat damage factor of each numerical grade; add protein and oil content, using a constant moisture basis, as official tests; add a breakage index for corn as an official test.

SORGHUM—Separate the current factor "broken kernels, foreign material and other grains" into three separate factors, and establish respective maximum limits for each numerical grade; add protein content, using a constant moisture basis, as an official test; tighten the limits for brown sorghum in all numerical grades.

SOYBEANS—Add protein and oil content, using a constant moisture basis, as official tests; tighten the interpretive damage lines; study the possibility of revising the maximum limits for damage for each numerical grade; add oil quality: free fatty acid (FFA) percentage, peroxide values, phosphatides and waxes as official tests.

SUNFLOWER—Change or delete test weight as a grade-determining factor; add oil quality: free fatty acid (FAA) percentage, peroxide values, phosphatides and waxes as official tests.

WHEAT—Report dockage to nearest tenth of a percent instead of current rounding down to half and whole percents; report protein on a constant moisture basis instead of current "as is" moisture basis; tighten the interpretation and reduce maximum limits for heat damage for each of the numerical grades; reduce the maximum limits for foreign material; replace the current visual classing system with objective testing methods.

Senator ANDREWS. Fine. Now what is the purpose of the complaint system, given that USDA is not a party to the grain, sell and buy transaction, can do little for the dissatisfied purchaser of the U.S. grain? Exactly what can you do?

Dr. GILLES. Well, the system, I think, is reasonable in the sense that, if an overseas buyer is dissatisfied with the material, they have two courses of action.

One is to contact the supplier directly, and certainly we encourage that. The second is to contact the local agricultural attaché or the local agricultural consul, and the complaint then is verified to the extent that they can, at that point of destination, and the information is transmitted, quickly, to the USDA here, in Washington.

If a complaint is relating to quality, we will then open up our samples, which are maintained at the point of loading.

When the grain is loaded from the export elevator to a ship, we use our automatic sampling equipment, and samples are divided into small portions, one of which is set aside in a file and locked. So that in the event that a complaint arises, then we take that file sample and we will reinspect it, to see whether or not the reinspection verifies the original inspection, or if indeed, the reinspection shows that there may have been an error, or, generally, several weeks will transpire from the time of the original inspection to the time of reinspection, to see whether there have been any changes in the quality.

Senator ANDREWS. But all you can tell is the condition of the grain at the time it left, and, as your earlier testimony indicated, you do not have the proper way to ascertain that the blending, or the lack of blending, the moisture content, or whatever else, has not allowed that grain to get out of condition and be a totally different grade by the time it hits the ultimate purchaser than it was when it left.

You do not have that power?

Dr. GILLES. We do not have the power to measure moisture accurately; that is correct.

Senator ANDREWS. Do you have any way of, in effect, having customer service representatives—I guess you would call that over there—to find out whether this is all a figment of somebody's imagination, or whether it is actually happening?

Since you are responsible for grain quality coming out of the country, do you have anybody to spotcheck in the foreign customer's backyard, to find out how it is showing up over there?

Dr. GILLES. Yes, sir; Dr. William Shuey who responded to your question about China is the gentleman that is in charge of our international monitoring unit, and they do spend a considerable amount of time overseas.

Senator ANDREWS. Do they find that our standards, or our delivered grain is of better quality now than it was 5 years ago, or, about the same?

Dr. GILLES. I would like to ask Dr. Shuey to respond to that one.

Dr. SHUEY. It depends on the particular grain that we are discussing, whether it is better, or not. The average is still the same. We have observed at the various locations, it will vary with the individual customer from time to time. The grain normally will be what the grade is that we have exported at the time of inspection. We do find, by handling of the grain, that there is some effects. Studies have shown this to be. Corn, for example, about a half a percent increase to a 1 percent increase, in broken corn each time it is handled, and about a half a percent to a quarter percent for soybeans when they are handled.

Senator ANDREWS. Do you find, Dr. Shuey, in the field, when you are in those foreign countries, that there are more complaints about U.S. grain than about our competitors' grain?

Dr. SHUEY. Recently, I was in Southeast Asia, and during a seminar, the question was raised between a series of importers about the amount of fertilizer that was found in our shipments, and the question was raised about whether or not and how we inspected the cargo containers, that is the shipholds, before they were loaded. It was interesting, that there were five ships involved; we had re-

ceived only two complaints, formally, and, when the discussion was over, I found out that there was also one ship that had originated from Canada, one from Australia, and one from Argentina, as well as the two ships from the United States that had contained the fertilizer. So it was not all U.S. shipments, nor was the complaint due to our inspection procedures.

Senator ANDREWS. But generally speaking, are the complaints more about U.S. shipments than Canadian or Argentine shipments?

Dr. SHUEY. We do not have access to all of that information, so I could not—

Senator ANDREWS. But when you talk to those people, what do they tell you? I have been over there, and I do not know whether it is because they see an American Member of Congress, or not; but I remember being with one Italian Semolina miller, and he was pointing out the type of samples he could get from the Argentine, or Canada, compared with the type of samples when he bought from us, and he said, "What would you do? You would buy as only a last resort from the United States?" They gave me the whole, the whole shot.

Dr. SHUEY. Generally, they will say that ours is the poorest; they can always get better from all of our competitors.

Senator ANDREWS. Do you think there is any validity to that?

Dr. SHUEY. Well, the expression, "that beauty is in the eyes of the beholder" and our experience has shown that what they have contracted for is what they have received.

Senator ANDREWS. Do you find that they have a tendency to contract for lower grade grain from the United States than they do from other countries?

Dr. SHUEY. Yes.

Senator ANDREWS. Why?

Dr. SHUEY. Well, our grade system is—the system is different than our competitors, or it is a different class of grain. You are comparing Argentine corn which is a flint corn versus our dent corn. Flint corn, being harder than dent corn, results in less broken corn and foreign material [BCFM] during handling. BCFM is a major complaint in our corn. Dust, will, of course, come out when it is being handled, and so forth.

Senator ANDREWS. Senator Zorinsky.

Senator ZORINSKY. Thank you, Mr. Chairman. Dr. Gilles, having been a businessman, I always expected to receive what I bargained for or paid for. I would count the merchandise when I would get it, look it over, see if it was contaminated, or bad in any way, or in any way altered from what I thought I had purchased. In this area, would you say that the exporters of grain in this Nation, to what degree, or what percentage, do they take advantage of mixing foreign matter, or, there is a tolerance area there which is allowable, is that correct?

Dr. GILLES. That is correct, and the maximum/minimum limits established are very—

Senator ZORINSKY. Do you think that the allowable tolerance limit is too broad, or do you feel that a high percentage is being used purposely and willfully by the exporter of grain inasmuch as it is within the law? To use this practice means extra money and

extra profits, and, therefore, would it be mismanagement of a firm's managerial ability not to do it?

Dr. GILLES. I am sure from the standpoint of a businessman, you attempt to sell within the constraints of whatever system you operate. Further, I think you will tend to go toward the limits.

Also from the standpoint of a businessman who is a buyer, you will tend to buy as economically as you can, hoping that you are going to get the best quality you can within the limits of the contract—so I think you have two different interests served, both in the business community.

Senator ZORINSKY. The rules of the game allow you to buy the best quality you can, but then remix it and still get a top price for the product, by displacing some of the product with grain of lower grade. It is like our tax laws—it is not against the law to use a tax shelter. Your accountant will say you are not going to go to jail by using it.

It is avoiding paying taxes, but it is lawful. What I am getting at is, if you were a businessman and you had wide latitude, and you bought the greatest grade grain in the world, and had the opportunity to mix it, and still obtain a higher price, all within the law, wouldn't you do it?

Dr. GILLES. I think the tendency is to operate within the constraints of the law.

Senator ZORINSKY. I think a man is a fool if he does not.

Dr. GILLES. Right. I think we also must recognize that all farms do not produce No. 1 quality grain. Weather is a factor; high and low spots in fields are factors; you might go through and find your field quite ripe and yet there may be one low spot, and you will say, "Well, I'll go around the low spot," and then you look to the west and see a potential rain cloud coming in—you say, "Oh, heck, I'll take it now anyway." So I think you see the blending will begin right at the farm level. I also think it is essential to recognize that our system has an advantage by using the blending system, because some of the grain that comes off of the farm may well be graded No. 4, if it were graded. It probably would not be, but, if it were graded.

The man who is bringing that grain has a cash product and would like to sell it. So if we set our standards too tight, we may find that we would impose undue restrictions on the seller, both in the domestic market as well as in the export market.

Senator ZORINSKY. Well, he is not mixing it on the farm; he is taking what he harvested. I am talking about when it gets to the export market. Don't you have a way of taking core samples on the other end that would indicate the addition of any foreign matter?

Dr. GILLES. Our samples are taken primarily at the point of last elevation before the grain moves to the ship. Samples taken overseas I think are very difficult to assess, for two reasons. There are not many automatic samplers. Japan, for example, is probably one of the most technologically advanced nations, and is now installing a number of diverter type samplers, and since 1981 they have installed a number. We have been sharing data back and forth between the two countries, and I think we understand much better now, than we did 5 years ago, how quality varies from one point to another, as a result of that fact. In some other countries, it is very

difficult to obtain a representative sample because the best you can do is go in with a probe, and to probe the hold of a vessel is a very inaccurate way of obtaining a representative sample of the vessel.

Senator ZORINSKY. What is a reliable way of obtaining a representative sample?

Dr. GILLES. Well, we believe that an automatic sampling device which samples grain as it flows down a spout is the best way of doing it. Generally, we take samples at about 20 second intervals.

Senator ANDREWS. Except for one thing, Doctor. An automatic sampler that samples the grain as it goes down the belt does not solve the problem we talked about earlier, of a number of tons of 16 or 17 percent moisture grain coming out at one point in time, followed by, 5 minutes later, in the loading of that vessel, a number of tons of 11 percent.

Your sample is going to show a uniform 13½ percent, but there is a big slug of awfully wet grain in one part of that hold.

Dr. GILLES. You are correct in the sense that the automatic sampler tends to average.

Senator ANDREWS. Tends? It is the only way it works, is it not?

Dr. GILLES. Right; that is the way it works.

Senator ANDREWS. I mean, it is not going to run a red signal light up at the top saying, "Hey, we've got a big slug of wet stuff coming in," is it?

Dr. GILLES. No.

Senator ZORINSKY. I am not that familiar with how all this measurement is done. All I know is when I rent a car from Hertz, there is a number on the mileage odometer when I take it out, and then when I bring it back, there has got to be another one, and they subtract one number from the other and they know how far I have driven.

You can take all the numbers on this side of the ocean that you want to, but without another number to create a comparison, I do not know how you can keep track of what happens after it leaves the farm and before it gets to the customer to create that reliability and credibility that we are looking for.

I got so when I would buy merchandise for my business, I could buy it sight unseen because the particular company that I had been buying from for years, had always provided what I thought I was going to get. I could care less who was on the assembly line and who produced it; I knew it was reliable. I think that is what we need to establish here—that "USA" on a product be recognized as the one to buy because you know what you are going to get.

Dr. GILLES. May I say, Senator, that we share a common desire, to maintain credibility of the U.S. exports, and specifically, in our case, to maintain a credibility of the U.S. export certificates.

I think that our export certificates are as valid as any export certificates of any exporting nation in the world.

In fact we have had many people come to study our system because they think they can improve theirs by adopting some of our rules.

I think also we should keep in perspective, in fact, that even in the calendar year 1985, when we have had the 71 complaints, those 71 complaints represented only 2 percent of the total volume of grain shipped out of this country. So, looking at it the other way,

there were 98 percent of the shipments that did not contain any complaints, and I think 98 percent is a pretty good record.

Senator ZORINSKY. I probably get complaints from only about 11 percent of my constituents, but I do not think that means the other 89 percent of the people are real happy with what I am doing. I wish that were true. [Laughter.]

Dr. GILLES. Well, again, I think we share a common thought here, but I do also think we need to keep things somewhat in perspective as the nature of the problem that we are discussing.

Whenever there is a single complaint, if you are a good businessman, you are going to be sensitive to it, and I think we are sensitive to it.

Senator ZORINSKY. Thank you very much, Doctor.

Senator ANDREWS. Of course, one of the concerns we have, Dr. Gilles, is the fact that the 98 percent who do not complain might be ones that realize that if they do complain, it is not going to do them much good. They just take their business some place else, and we have got no way, really, of ascertaining that. Let me ask a follow-up question to one of the points Senator Zorinsky raised. He said as a good businessman you use the rules that you have got, and you operate within the constraints—I think was the language he used. On that basis, does Canada, as our principal competitor, have different constraints than we do?

Does Canada have in their export rules a different way of dealing with blending, shall we say?

Dr. GILLES. Yes, sir. The Canadian system is quite different from ours.

Senator ANDREWS. Could you describe, briefly, what the Canadians do to respond to this blending question that we have developed.

Dr. GILLES. First of all, I think we need to recognize that Canada is primarily a one-commodity exporter in terms of volume. Their big volume is wheat.

Senator ANDREWS. But they have frost-damaged wheat; they have high-moisture wheat. You know, we have wheat, soybeans, barley, corn, and a number of other commodities; but you know, they must have that off-grade stuff that could be used to plug their load. Somehow or another, they seem to avoid that.

Dr. GILLES. They do, but I think another point we need to recognize is, their entire system is controlled by the Canadian Government. From the point of licensing—

Senator ANDREWS. But our export grain grading is controlled by the American Government.

Dr. GILLES. That is one segment of the whole marketing system.

Senator ANDREWS. Well, that is true.

Dr. GILLES. But in their system, they control blending right at the primary elevator. Grain that comes from the farm to the primary elevator may be inspected, initially, free. In our system, it is voluntary. Much of the grain that moves from the farm to the elevator in the United States is not inspected by the official system.

Once grain is inspected in Canada and a grade assigned, then they blend only with common grades. If it is thought to be No. 2 Canadian Western, it is blended with No. 2 Canadian Western as it moves on through the system.

Grain is inspected as it moves into the export elevator. Now we do not require, in the United States, grain to be inspected as it moves into the export elevator.

They clean until clean, in their terminology; their dockage is very low, and once material is cleaned, it is not returned to the system.

Some of the points that Congressman Evans made earlier today are perhaps modeled after some of the points that Canadians use in their system, and I think also, we have to recognize that the Canadian Wheat Board and Canadian Grain Commission are in a position not only to give an export final certificate, but they can identify, in the event that a complaint is noted overseas, and they can adjust price. Our Government does not. There are a number of points that are quite different.

Senator ANDREWS. But what you are telling us is that under the Canadian grade standards for export, the blending of storm-damaged soybeans with good quality soybeans, that recently took place in a shipment from the United States, could not have happened?

Dr. GILLES. It probably would not have happened in Canada.

Senator ANDREWS. You are saying, that under the Canadian rules, you cannot take sprout-damaged wheat, for instance, and blend it with No. 2 or No. 1 wheat at the terminal, to come right to the narrow tolerance or the specific tolerance for a certain grade?

Dr. GILLES. It is my understanding that you are correct.

Senator ANDREWS. You cannot blend under Canadian standards grain of exceptionally high moisture content, with grain of low moisture content, just as you put it into that ship for export?

Dr. GILLES. Well, the Canadian system operates on grain at about 13.5 percent moisture, and I really cannot give you an answer to that question. The probability would be that they would not blend high moisture wheat with low moisture wheat at that particular point.

Senator ANDREWS. Yet under the American rules, high moisture grain can be blended with low moisture grain, even though it causes havoc on the way to the ultimate destination?

Dr. GILLES. It can be. But it probably is blended, first, in the interior, not at the export elevator.

Senator ANDREWS. But in the Canadian rules, that kind of blending is not allowed in the interior?

Dr. GILLES. It would not be allowed in the interior, once the grade is picked.

Senator ANDREWS. In your mind, as a leader in the whole issue of grain quality, if this blending of high and low moisture content grain took place in the interior, 1 week, 2 weeks, before it reached the port of export, it would not be near as damaging because it would be detected, if anything went out of condition, or the moisture would have migrated and had an achieved uniformity of moisture through the newly blended mass; it would not be nearly as troublesome as at the port of export, would it?

Dr. GILLES. From the standpoint of a foreign buyer, it would not. From the standpoint of a domestic buyer, if the blending occurred, and the conditions were sufficiently warm and appropriate, if blending occurred in the interior, by the time the grain got down

the river on a barge, probably, the first appearance of spoilage would already be able to be detected.

Senator ANDREWS. Thank you very much. Senator Zorinsky.

Senator ZORINSKY. I have no further questions.

Senator ANDREWS. Thank you very much for your complete and informative testimony.

Our next witnesses are a panel of two: Charles Ottem, who is the president of the National Barley Council, and director of the North Dakota Barley Council, from Osnabrock, ND; and Erv Friehe, who is the chairman of the Nebraska Wheat Board from McCook, NE, and he is accompanied by Dan McGuire, the executive director of the Nebraska Wheat Board.

Gentlemen, we would like to have you come up and sit here, and Senator Zorinsky I am sure would like to introduce his Nebraska friends, and I will pray over Chuck Ottem a little bit, too.

Before we move into this, let me say that it is evident to those of you who are going to be witnesses—many of you have traveled from a long distance—that we took an inordinate length of time with Dr. Gilles, for reasons that I am sure you all realize are obvious.

It would be the hope of the subcommittee—and Senator Zorinsky and I have talked about this—that we limit the presentation of the witnesses from now on to 5 minutes. That will give us plenty of time to get these hearings over by 12:30 and allow adequate time for questions as well. Let me also assure all of the witnesses, that the full text of your statement will appear in the record as though it was uttered in its entirety, and you can summarize it in any way you want to, to allow a maximum amount of time for an exchange of ideas between yourself and the members of the committee.

Senator Zorinsky, would you like to introduce Mr. Friehe.

Senator ZORINSKY. Thank you, Mr. Chairman. I am pleased to introduce Erv Friehe, who is the chairman of the Nebraska Wheat Board. Erv presently serves as a member of the export enhancement program advisory group.

Erv has also served as secretary-treasurer of the National Association of Wheat Growers, the secretary-treasurer of United States Wheat Associates, and chairman of Western Wheat.

In addition, Erv is past president of the Nebraska Wheat Growers Association.

I would also like to introduce Dan McGuire, who is the director of the Nebraska Wheat Board. Both of these gentlemen have a tremendous knowledge of agricultural trade and grain quality in particular. I look forward to their testimony today. Mr. Chairman, I thank you for allowing me to introduce these two very knowledgeable people who are as well personal friends and constituents of mine.

Senator ANDREWS. Thank you very much, Senator. Let me point out that Charles Ottem is the son of Fritz Ottem who has been a long-time activist in a number of things in North Dakota, but largely in the production of malting barley and the marketing of malting barley.

They are a farm family from Osnabrock. They are also very active in Masonic work. As a matter of fact, Charles and I got our white caps together a year or so ago. So, a good long-time friend,

and a very competent farmer, and a very good representative of the barley producer, as his father was before him.

We are glad to have you gentlemen here, and Mr. Ottem, if you want to proceed with your statement.

STATEMENT OF CHARLES OTTEM, PRESIDENT, NATIONAL BARLEY COUNCIL, AND DIRECTOR, NORTH DAKOTA BARLEY COUNCIL, OSNABROCK, ND

Mr. OTTEM. Thank you, Senators. I do have a short statement and I would like to read it. It will take me but a few minutes, and then, of course entertain any questions you might have.

Senator Andrews and Senators: I am Charles Ottem. I am a grain farmer from Osnabrock, ND, which is a small farming community in northern North Dakota. I am presently president of the National Barley Growers Association. The National Barley Growers Association is a dues paying organization consisting of members from North Dakota, South Dakota, Minnesota, and Montana, at the present time.

Raising, marketing, and using our high quality product has always been and will continue to be a major concern to producers of U.S. barley.

We believe anything done to lower, or alter the original quality of U.S. grain is totally unacceptable. I believe that all information must be examined before we place blame on any sector of the industry, from the grower on up.

The National Barley Growers Association has been an active and a willing participant in the ongoing series of grain quality workshops that is being sponsored by the North American Export Grain Association, where the exporters and the growers meet to discuss needed changes of the Federal grain standards.

It is difficult to determine if a quality problem really exists; however, I would like to share with you some of my own personal experiences.

Two summers ago, I was a participant on the barley trade team to Taiwan and Japan. In each country, the question was always asked, "Why don't you buy more barley from the U.S.?"

The answer was the same in both countries. "We much prefer the quality of the barley that Canada and Australia sells us. It is cleaner and generally exceeds the quality tendered." An important point.

On the same visit, we visited a feed mill on the northern island of Hokkaido in Japan, whereby the millers laid out the samples that you were talking about with the Durum. They saw the samples of barley from each of the three countries, for our own examination. I have to admit to you I was ashamed of the sample that was labeled "U.S. barley." It was dirty and infested with weed seeds and wild oats. I would not want to admit it was raised on my farm.

So, the question that comes to my mind is this quality of the product U.S. farmers are trying to sell, or is it being manipulated to meet the allowances that our Federal grain standards permit?

It is a very humbling experience to have a customer tell you to your face that they do not want our grain, and especially humbling

when you are there to encourage them to buy more at the same time.

Another story. A member of the North Dakota Barley Council, just recently traveling with the Governor of North Dakota to Taiwan and Korea returned with another story which upsets me.

Louis Arnold of Esmond, ND met with a high-ranking official of the Taiwanese Government to thank him for the recent purchase of U.S. barley, and to encourage his country to buy more. And Senator Andrews, you were there when that team came to Fargo. You knew how excited we, as barley farmers were, to have a team come in to North Dakota to purchase barley from us.

Vincent Siew, Director General of the Board of Foreign Trade, stated that they would not be purchasing any more barley from the United States. Mr. Arnold asked him why, and the answer was that the barley purchased last fall did not meet the grade.

The barley that came from the United States was under test weight that was specified on the tender, that they wanted. He also asked, "Why should we purchase from the U.S. when we can buy from Australia and Canada and receive grain that exceeds the tendered specifications?" That was a question that Louis Arnold could not answer and neither can I.

In a continuing effort to ascertain that a problem of quality really does exist, the North Dakota Barley Council contacted all the overseas offices of the U.S. Feed Grains Council.

We asked if quality was a real problem and if the need for changes in the U.S. Federal grain standards was warranted.

The responses were not as complete as we hoped, but a need for a better understanding of grade standards was apparent. Most of the answers were, "I don't know," or, "I don't understand the question."

We had hoped to have a better idea if a quality problem exists in our barley export grain and what we must do here in the United States to correct the problem.

It is my personal belief that a problem does exist. If tightening our standards is necessary to insure that our customers receive a better product, I believe the American farmer is all for it. I also recognize that the American farmer is going to pay the bill.

It is a necessary expense that will get our grain on the quality levels of our competitors. I believe if our competitors are delivering a superior product to ours, we must do whatever is necessary to meet and exceed our competition. I think the American farmer is willing to do anything in his power to meet this challenge.

Quality is not the only problem facing U.S. exports. Subsidized competition, high value of the dollar, threats of embargoes, and the general unwillingness of the U.S. Government to make U.S. exports a high priority have a negative effect upon the U.S. sales of barley.

Barley seems to be as hardhit as any U.S. crop. Barley exports are down from a high of 100 million bushels in 1983 to the present level of 18 million this year.

We are currently drowning in our surpluses. Customers like Taiwan, and Japan, as I mentioned before, are not happy, and it is easy to see why we have these surpluses.

I believe once these problems, and others, are solved, we will see U.S. exports expand and prosperity return once again to the American farmer.

Thank you for this opportunity to testify.

Senator ANDREWS. Thanks a million, and thanks for keeping your remarks within the bell. Mr. Friehe.

STATEMENTS OF ERV FRIEHE, CHAIRMAN, NEBRASKA WHEAT BOARD, McCOOK, NE, AND DAN MCGUIRE, EXECUTIVE DIRECTOR

Mr. FRIEHE. Thank you, Mr. Chairman, and Senator Zorinsky. I am also a farmer, by the way, from Nebraska, and I would like to say that the Nebraska wheat growers as well as the Nebraska Wheat Board have been concerned about grain standards for many years.

Just in the last couple of years have we decided that we are going to try to do something about it. I want to comment as a corn farmer, that every bushel of the corn that I deliver to the elevator is docked for that percent of moisture that exceeds 15, and I also pay the drain charge on it.

So I believe the farmer, if he is not delivering the best quality grain, is certainly paying to have that grain upgraded through drying, or things like that.

With that, I would like to, for our official testimony from the wheat board, turn it over to Mr. Dan McGuire, who is our director.

Senator ANDREWS. Fine. Dan, let me assure you your whole statement will be in the record; summarize it, if you would.⁴

Mr. MCGUIRE. Very good. The Nebraska Wheat Board is the agency of the State of Nebraska with the responsibility of protecting and stabilizing the State's wheat industry, and the economy of the wheat-producing areas of the State. The board is responsible for the policies and programs of the State regarding the development, marketing, utilization, and so forth for wheat grown in Nebraska.

I want to commend you, Senator Andrews, for introducing S. 1121, and for taking this legislative approach toward correcting a serious problem facing U.S. wheat in the world marketplace.

Put very simply, the problem is uncompetitive and outdated U.S. grain standards, and grade factor tolerances for U.S. wheats compared to those of other wheat-exporting nations.

There is no mystery relative to why U.S. grain standards are uncompetitive. The grade tolerances simply allow unacceptably high levels of total defects, dockage, and wheat of other classes within the various grades.

Currently, U.S. Grade No. 1 wheat can legally have 3 percent total defects, and 3 percent wheat of other classes, for a total of 6 percent lower quality or defective material, and still be certified by the Federal Grain Inspection Service as grading No. 1. Dockage is not a great factor and whatever level of dockage exists in a shipment is actually in addition to total defects and wheat of other classes.

⁴ See p. 103 for the prepared statement of Mr. McGuire.

U.S. No. 2 wheat is allowed to have as much as 10 percent of total defects and wheat of other classes, and still legally meet grade. Again, dockage is not a grade factor and is on top of these other factors. Wheatgrowers and other grain producers across the United States have become increasingly aware of the disadvantage their commodities face as they are offered in the supermarket of international trade.

U.S. farmers realize that importing nations are becoming extremely quality conscious and even more selective in choosing their sources of supply.

U.S. grain producers believe that U.S. wheat and other grains are dirtier than the grain exported by our competitors and these producers want the Congress to do something about it.

A recent grain producer opinion poll conducted in Nebraska by the nationally known firm of SRI Research Center, Inc., found that 51 percent of Nebraska farmers believe that wheat and other grains exported by the United States is dirtier than that exported by our competitors.

Eighty-four percent of all Nebraska farmers want the U.S. Congress to pass a law that will tighten U.S. grade standards so that wheat and other grains exported from the United States will be much cleaner.

Ninety-two percent of all farmers with an opinion favor such Federal legislation. The Nebraska Wheat Board believes the SRI-Nebraska producer survey to be representative of producer attitudes nationwide. We believe that the silent majority of U.S. farmers are speaking in a loud and clear voice.

So if we accept the fact that U.S. grain standards are a problem, the obvious question is, why has not the grain industry changed the standards before now? The reality of the situation is that specific interest groups within the grain industry benefit immensely from the status quo.

Grain exporters and the grain trade system, at various stages within the U.S. marketing chain, benefit by being able to blend low quality grain with higher quality grain, using the wide range of grade factor tolerances within the standards.

Farmers are discounted at local country elevators for low quality grain, based on the theory that an inferior product is worth less in the marketplace. Yet grain traders and exporters are able to blend that same lower quality wheat into higher quality wheat and sell it for the going price of, let's say, No. 2 U.S. Hard Red Winter.

In the process, both the minority of farmers delivering lower quality grain and the majority of farmers delivering higher quality grain have been penalized and exploited as have foreign buyers.

A document entitled "U.S. Grain Standards—An Immediate Problem With Obvious Solutions" is being provided to you today. It is this document, provided for all the Senators here, and a few extras, I believe.

Senator ANDREWS. We will make that a part of the committee's files. We appreciate that.

Mr. McGUIRE. Thank you.

This document identifies the nature of the problem and provides an analysis of the magnitude of the levels of defective material that actually existed in U.S. wheat exports in 1984.

Again, there is no mystery as to why the large grain exporting firms and the grain trade oppose changing the grain standards. It is primarily a profit motive. However, is it not ironical that it was the same interest groups that supported the so-called market-oriented 1985 farm bill? They told U.S. farmers, and the U.S. Congress, that it was absolutely essential to lower wheat prices by 90 cents or a dollar a bushel in 1986, in order to be competitive in world markets.

But when it comes to having market-oriented grain standards for wheat, as a means to be competitive, those same interest groups want a different set of rules.

Do I get the remainder of Mr. Friehe's time on this?

Senator ANDREWS. Thank you very much. We will put your whole statement in the record. Do you want to summarize the balance of it?

Mr. McGUIRE. OK. The Nebraska Wheat Board did not support the low commodity loan rates, but we have those rates nevertheless. I submit to you that lower wheat prices are not near as essential a factor for increasing wheat exports as tighter grain standards are, and if U.S. exporters and the grain trade insist on supporting the market-oriented approach for wheat prices, I would say that they should also be made to support the market-oriented grain standards.

If lower wheat prices are market-oriented, so are tighter grain standards, and in this presentation here we have a set of recommendations. It gets into the dollars and cents that importers paid on, let's say, a 1 million bushel shipload, if we had approximately 5 percent total defects, dockage, and wheat of other classes. It gets into the ocean freight that is involved in that as well as the—I think we ought to also remember that farmers pay the freight. It is all backed off to the farmer after it leaves the point of first sale, so a farmer is paying the freight on all of that as it moves around the interior of the country, before it gets to the export point.

We do have a set of recommended changes, grade requirements, a specific set of new grade requirements for wheat. For instance, use of the term "dockage." We suggest we discontinue it entirely, and all material considered to be dockage in a sample be included in the determination of foreign material and be reported on the one-tenth of a percent basis.

The other practice that you brought up earlier, current statistical averaging—the CUSUM practice—used to determine whether a cargo meets contract specs be discontinued and that every subplot be made to conform to the actual tender specifications of the foreign buyers. We would like to see protein reported on a standard moisture basis, and the numbers included after page 6 of this testimony. This sheet gives you our recommended grade requirements.⁵

This came about as a result of about a year's time. The National Association of Wheat Growers had a grain standards committee that Mr. Friehe chaired, and their recommendations were taken to the board of directors of the National Association of Wheat Grow-

⁵ See p. 108.

ers, and to U.S. Wheat Associates, and in January, both boards approved these recommendations that we have in here.

So we think we have a consensus in the grower sector of the industry and in addition to what is presented on that subject, we have this producer poll information and you also have a full copy of that poll of farmers in Nebraska.⁶

Senator ANDREWS. Thank you very much for that excellent testimony. Mr. Ottem, do you feel that the producers are willing to accept these higher grain standards, knowing that they will move back into the country, as well as being imposed just at the port of export?

Mr. OTTEM. It is my feeling that they will, and the reason I say that is, we keep hearing all these "horror stories" of how the grain leaving us is being doctored at the export terminal for export shipment.

In that respect, probably on your bill, the thing that bothers me a little bit about it is being able to add it back in to be able to meet tendered specs. I think the closer we move to exceeding our competition, and if our competition is cleaning it, then we had better do it.

Senator ANDREWS. Well, our bill—and Senator Zorinsky joins me in this—is just a starting point, it is a skeleton on which this hearing, and other information-gathering means that we have, will put the flesh, the bone, the muscle on, to make the complete picture.

As a matter of fact we have sent our bill down to the Grain Inspection Service, and they looked at it, and they thought this was a good step forward. That does not mean that we feel it is nearly the complete step we need. You are supplying, really, the "muscle" to it in your testimony of today; but we are all in this together. We are going to hear from the producers. We are hearing now from the producers. We have already heard from the Chief of the Grain Inspection Service. We will then be hearing from the marketers. So, we want to get all sides before we sit down to write this legislation.

You have heard the comments by Dr. Gilles, and the interaction between Dr. Gilles, Senator Zorinsky and myself. Do you have anything you want to add to, or highlight, from those points that were brought out?

Mr. OTTEM. Well, to really let you know, at this time, that we are in the process of reviewing the barley standards. We have asked the Federal Grain Inspection Service to start taking testimony again, and it is my personal belief that the barley standards need a complete revamping. I think they are too weighted on one side, and do not necessarily allow us to export grain in the manner that we would certainly like to.

So that process, I would guess, will be coming on now in the next year or so. So that barley standards are definitely going to be reviewed.

Senator ANDREWS. So the producers are willing to go with the tighter quality standards?

⁶ See p. 109 for a reprint of the study by SRI Research Center prepared for the Nebraska Wheat Board.

Mr. OTTEM. I am convinced of it. I think the producer right now of course feels that he is producing an excellent quality product and that what is being shipped is not necessarily what he is producing. I think some studies probably have to be done to see if that is true. I do not have any personal experience to say that it is altered, but if it is, I think we ought to have some teeth in our law to definitely stop it, period.

Senator ANDREWS. But you found the same thing in Japan that I found in Italy?

Mr. OTTEM. Absolutely; absolutely.

Senator ANDREWS. Thank you very much. Senator Zorinsky.

Senator ZORINSKY. Thank you, Mr. Chairman. Mr. McGuire, in your testimony, you indicated that some nations were less than satisfied with some of our grain.

Can you mention any specific examples, and, in your judgment, do you think those countries will continue to buy from us if we do nothing to strengthen our grading standards?

Mr. MCGUIRE. Well, I could mention Japan which is a very sophisticated buyer and the second largest customer for U.S. wheat. In the most recent Japanese fiscal year, there were 31 complaints, cases of wheat-importing companies in Japan being fined because the wheat coming in did not meet the specifications of the food agency. All 31 complaints were against U.S. wheat; none of them were against Canadian wheat; none of them were against Australian wheat. The Soviet Union has made some complaints about quality in grain. Mr. Friehe is more familiar with their complaints than I am. China, Venezuela, Israel, various European countries, have all made statements complaining about the quality, and in fact some European countries have told us that without changing the standards, and getting our grain as clean as the Canadians, or something close to that, they will not be buying any more U.S. wheat.

I do not think we will get the customers. I do not think we will keep our customers, quite frankly, until we get a product out there that is commercially and industrially competitive.

It is an industrial product, and if a flour miller in Taiwan or Japan gets Soft Red Winter wheat blended in with his Hard Red Winter wheat and it gums up the rolls on his flour mills, and the baker who buys that flour is dissatisfied, we are going to have some dissatisfied importers, and that is what we are facing right now.

The question is, are we going to do something about it, so we can prevent that, and hopefully, hang on to the market share we have, and then start trying to get back some of the market share we have lost.

Senator ZORINSKY. You have detailed some recommendations as to how to improve our grain washing. Could you specifically highlight one or two of those, where you think we are at a disadvantage with, for instance, Canada's standards, or other competitors throughout the world.

Mr. MCGUIRE. Well, the Canadians have a definition in their grain standards of what is termed "commercially clean" wheat for export. A definition meeting "commercially clean" will have no more than 1 percent of what we would call defective material. In

that sense, dockage, foreign material, wheat of other classes, total defects; the U.S. average for 1984 was right at 5 percent.

Five percent of all the wheat we shipped, by volume, was total defects, dockage, and wheat of other classes. So, if you look at it from that point of view, we have to devise a system that prevents those levels of dockage and defects from staying in there.

We have to tighten it down, so that from the farm on out, we will have close to that Canadian cleanliness. I might add that the quality of our wheats are second to none when it comes to the end-use properties and the end-use performance in the foreign market or anywhere else.

They make the best noodles and the best products around the world. It is that definition of quality, when you take it in the context of cleanliness, that is a problem.

So our recommendations on putting dockage and foreign material together, and then tightening down the numbers on the allowable total of the FM, and total defects, would be, in our judgment, the way to deal with this problem, and to get it more competitive. That is one specific example. And then simply to tighten down the tolerances for Grades 1, 2, 3, and so on. I think we have to "bite the bullet" on that and I think it is time we do it, after about 70 years of not doing it. But I think that is the solution, and the grade requirements that we have in here I think would achieve getting us competitive in the world marketplace.

Senator ZORINSKY. Thank you, Mr. Chairman.

Senator ANDREWS. Thank you. Charles, one last question. The constant theme seems to be the Canadians are doing it pretty well and why don't we. That was just mentioned. I might point out that you cannot farm much closer to the Canadians than Charles does.

We go back and forth across that border, and they are friends, and you talk to them. Does the Canadian farmer have any problem living up to the Canadian export standards?

Mr. OTTEM. Not to my knowledge; at least I have never heard any complaints from any of the Canadian farmers about their standards being too rigid. No. In fact I think the Canadian farmers are happy that they are in a position that they do not have huge surpluses like we do, and they are moving their grain.

Senator ANDREWS. They like to be the primary supplier and keep us the residual supplier. Thank you very much, gentlemen. We appreciate your taking the time to testify.

Our next panel is made up of Richard Konzak, who is the chairman of the North Dakota Farm Bureau Commodity Committee, from Devils Lake, ND. William Allen, Jr., the executive vice president and general manager of Union Equity Co-Op Exchange in Enid, OK, and William Jerry Cotter of Corpus Christi, TX, representing the National Grain and Feed Association.

Thank you very much, gentlemen. I pointed out that Charles Ottem is a fellow North Dakota farmer, as am I. Dick Konzak and I went to North Dakota Agricultural College before it became a State university, the same place that Ken Gilles, as a matter of fact, was the head of the Cereal Technology Department. We went to college together. We both graduated in agriculture.

Unfortunately, on our family farm, you have got to be in Congress to make ends meet. You know about how tough things are

back on the farm, and Dick's doing it back on the farm. Good to have you here, Dick. We appreciate your coming.

Let me also point out, Mr. Allen, that Senator Boren regrets very much not being able to introduce you to the subcommittee, but as we all know, he is tied up in the Finance Committee working on the tax bill right now, and that is what happens with those of us who serve on multiple committees. He asked me to express to you his regrets at not being able to be here. As usual we will proceed on the 5-minute rule. Dick, do you want to begin? Let me assure you that your total statement will appear in the record.

STATEMENT OF RICHARD KONZAK, CHAIRMAN, NORTH DAKOTA FARM BUREAU COMMODITY COMMITTEE, DEVILS LAKE, ND

Mr. KONZAK. Thank you, Senator Andrews. I will accordingly delete certain sections with the understanding that they will appear.⁷

Mr. Chairman, members of the committee. I appreciate this opportunity to provide comments on Senate bill 1121.

North Dakota is a leading State in the exportation of grains. I share with Senator Andrews the concern that an improvement in the quality of grains being shipped for export will encourage and promote the quantity of our grains moving into the export market.

The marketing conditions in the Upper Great Plains region is unique. Farmers in our region have been selling their product for years under a determined dockage system established under the Federal Grain Standards Act.

When we farmers haul our grain to market a dockage is immediately determined on each load. That weight is then removed from the grain being sold. We farmers are paid only for the clean grain that we deliver. The dockage has become the property of the grain buyer without any costs, whatsoever. Our region has a history of utilizing dockage in order to promote and provide a cleaner, premium product.

Our North Dakota producers have been geared toward the production of a clean, high quality product. The latest research data from the 1985 regional wheat quality report provides the following information: The average weight of North Dakota wheat was 59.2 pounds.

Federal Grain Standards for U.S. No. 1 is 58 pounds. Our State average for foreign material in wheat was two-tenths of 1 percent. Federal Grain Standards allow five-tenths percent.

The North Dakota average for total defects was 1.7 percent while the official standards are 3 percent. This is No. 1.

Our State average for contrasting classes was zero as compared to Federal standards which allow 3 percent. Our State average for dockage for the years 1984 and 1985 was nine-tenths of 1 percent.

Recently, I visited with Mr. Sam Kuhl, manager of the North Dakota Mill and Elevator at Grand Forks, North Dakota. He provided me with the following written statement:

During 1985, I purchased 10 million bushels of No. 1 Hard Amber Durum [HAD] and No. 1 and No. 2 Hard Red Spring wheat [HRS]. The average dockage on these

⁷ See p. 113 for the prepared statement of Mr. Konzak.

10 million bushels which I purchased was below one-half of 1 percent. The total cleanout of non-millable material, including dockage, was between 2.5 and 3 percent. Indeed, for the past 2 years, North Dakota wheat has averaged grain specifications greater than those demanded by the Federal Grain Standards of No. 1 and No. 2 wheat.

In my contacts with the various commodity groups, general farm organizations and checkoff commissions, I am confronted with producer bewilderment and frustrations with the industrywide system that is unable, and unwilling, to keep pace with the individual farmer's ability to produce and offer in the marketplace, a product superior to that designated by the established standards of the Federal Grain Standards.

Within my own organization, the North Dakota Farm Bureau, in a survey taken last spring of our membership, 91 percent of our respondents expressed the belief that Federal Grain Standards should be tightened.

This action was followed by a resolution in our house of delegates calling for legislation to upgrade and enforce quality standards of grain leaving our ports.

By the way, one out of every eight farmers in North Dakota was polled in this survey. The North Dakota producer is a realist. We realize that despite our quality product on the farm, our highly integrated transportation system, our more than adequate handling and storage system, and the most advanced technological equipment at the port sites, we have lost our competitive edge to countries such as Canada, Australia, and Argentina, who are intensely concerned with marketing a quality product.

Canada, especially, has set the standard for excellence and the marketplace has rewarded it with an increasing export share.

In June 1984, I had the privilege of attending a Great Plains Symposium on World Agriculture Trade sponsored by the North Dakota State University and our Northern Crops Institute.

We listened to many speakers of national and international reputation. Each discussed the many barriers facing the United States in the world trade market, including the high value of the dollar, credit terms, our high price support system, and internal constraints to trade.

I was particularly interested in the remarks of Pete McVay, president of Cargill, Inc. of Minneapolis, MN, who heads one of our major exporting firms.

He stated that U.S. farm policy needed to accomplish a number of things. First, the maintenance of a reasonable food reserve to protect us from natural disasters; second, the maintenance of our efficient agricultural plant by the provision of a safety net for farmers; and third, a competitiveness.

I would like to quote from his remarks on this subject:

We must be competitive at all levels—producer, merchant, government-for-export markets. Policies must encourage, permit and in fact require that our producers be fully competitive with foreign competitors. We must be willing to compete with the Canadian, the Australian and the Argentine bushel for bushel, and there's no reason we should not be able to do so.

I will delete a little here from his remarks.

Senators, I would emphasize that we must compete clean bushel for clean bushel. I am here primarily to represent our North Dakota Farm Bureau membership.

We support the intent of Senate bill 1121 in its attempt to put teeth into the Federal Grain Standards. However, we feel it will be necessary for portions of line 2 and line 3 of page 2 to be deleted.

The words, "except to conform to export contract terms" should be stricken from the bill. How many times have we heard, in answer to complaints about the quality of our grain received in the export market—"Well, they got exactly what they contracted for."

The bill, with its present wording, would effectively block the necessity of changing the Federal Grain Standards system.

Senator ANDREWS. Thank you very much for an excellent statement. Let me point out, that when we say "except to conform to export contract terms," if we stiffen the export contract terms, that puts a little different context on that requirement, I would imagine, and what we can interpret your calling for is, you do not want that language in if the present contract terms are as wishy-washy as they are, but if we tighten them up, then that might be a little different thing.

Mr. KONZAK. Amen. Thank you.

Senator ANDREWS. Let us now hear from William Allen, Jr. Good to have you here.

STATEMENT OF WILLIAM R. ALLEN, JR., EXECUTIVE VICE PRESIDENT AND GENERAL MANAGER, UNION EQUITY CO-OPERATIVE EXCHANGE, ENID, OK, REPRESENTING THE NATIONAL GRAIN TRADE COUNCIL

Mr. ALLEN. Thank you, sir. I am here representing the National Grain Trade Council as well as Union Equity Co-Operative Exchange. Union Equity is a regional cooperative owned by about 469 local cooperative elevators in 10 States, from South Dakota to Texas, and represents, that ownership, about 250,000 farm families.

I have a prepared statement and as well as a prepared oral statement, and I will forego both for the sake of the record and time, and briefly highlight it.*

Senator ANDREWS. That will be fine.

Mr. ALLEN. We do thank you for this opportunity to appear today. We commend you and your colleagues for these efforts to study the most pressing problem confronting agriculture today, and that is reduced exports and lost market share for, we believe, a variety of reasons. The depressed state of agriculture is horrendous on all fronts and it affects not only the farmers and the grain firms, but, it affects related industries such as railroads, chemical companies, ag implement dealers, shoe merchants. It affects so much of this industry. It represents—as you know it is the largest industry in our country, and it represents about 25 percent of the employment, and about 25 percent of the contributions to GNP.

We support your efforts to try to help reverse this depressed state of this agricultural economy. We think the key—the key to

*See p. 116 for the prepared statement of Mr. Allen.

turning the tide and reversing this trend—is to substantially increase exports of U.S. wheat and other grains, and very, very soon.

Because of the concern over the grain quality issue, I would like to comment just for a moment on the ad hoc workshop which is headlined NAEGA but it is based by the National Grain and Feed and supported, as well by the Grain Trade Council, and the National Council of Farm Cooperatives.

It also has representatives from producer groups, and we think that is very, very important, as well as academia. We think this is the setting that we have been searching for for a long, long time, and has the forum where all of these type concerns about any allegation, from any foreign buyer, can be brought to the table, and I think we share a common objective, and that being to find out the extent of the facts of any of these complaint allegations.

We support your bill as written. We would not support any extension thereof because we have not seen what the extension might be, but as it is written, we think it allows the industry to live within the contract terms, and in a free marketplace we think that should be up to the buyer and seller to set those terms for whatever goods of commerce are being traded.

We respectfully believe that the price differential of our grain is our largest problem, in addition to other macroeconomic problems, the value of the dollar, and economic flight of foreign buyers, et cetera.

But we think this price differential, with all due respect, we have consistently, in wheat, been out of the marketplace at the world market between \$20 and \$30 a ton, and we think that is the deterrent, and the reason that our exports have dropped considerably.

We think the Export Enhancement Program has failed to accomplish helping this key to turn the tide and increase exports. As a case in point, our largest buyer of U.S. Hard Red Winter, primarily grown in Kansas, Oklahoma, and Texas, as well as some in Nebraska and Colorado—our largest buyer—their purchases of Hard Red Winter have fallen from 40 percent to less than 2 percent in recent years. That is a drop of 250 million bushels, down to less than 6 million bushels, a 98 percent fall. That is our largest problem, sir, and we would say, though, that the workshop we think can identify and enable the producers and the sellers, and academia, and the Office of Technology to sit down together, and in depth, and with much expertise, do what you are I think suggesting be done, so we can take care of that problem as well.

But we encourage you to continue your efforts and help us find a way to aggressively and substantially recover the export share which was taken from us on January 4, 1980, with the Russian embargo and it has been on a downhill slide, with all due respect, since that time.

We would invite you to participate—you and your staff, and your colleagues—in the workshop. Please come, attend, send your letters of concern, and hopefully, this medium of investigation can continue with the experts from all facets of the agriculture industry.

I would say you are welcome to come and see, tour our export elevators. We have one in Houston and one in Galveston. You would be most welcome, as well as your staff and colleagues. Thank you.

Senator ANDREWS. Thank you very much. Our next witness is William Cotter from Corpus Christi, TX, who represents the National Grain & Feed Association. Welcome to the committee, Mr. Cotter.

**STATEMENT OF WILLIAM JERRY COTTER, CORPUS CHRISTI, TX,
REPRESENTING THE NATIONAL GRAIN & FEED ASSOCIATION**

Mr. COTTER. Thank you, Mr. Chairman. The National Grain & Feed Association is pleased to participate in this hearing on a subject that is important to all sectors of agriculture.

Mr. Chairman, we particularly commend you for your leadership and interest in this topic. I am Jerry Cotter, director of operations with the Port of Corpus Christi Authority in Corpus Christi, TX.

I appear here today on behalf of the National Grain & Feed Association, on whose grain grades and weights committee I serve. I will summarize my statement.⁹

Our support of the U.S. Grain Standards Act has a long and well-documented history. The necessity of having a uniform grading and inspection system that accurately and objectively describes the physical properties and quality characteristics of grain was one of the association's reasons for being, and continues to be one of our primary missions.

Today, the National Grain & Feed Association is supporting several important changes that address two of the primary grain quality concerns that have arisen.

We believe that the wisdom exercised by Congress in delegating to the USDA the responsibility for developing grain standards through a formal rulemaking process, has contributed to the development of foreign and domestic markets and enhanced the trading of grains.

Two of the fundamental strengths of the U.S. Grain Standards are that they remain relatively stable and are understood worldwide. They are not changed radically, or precipitously, from year to year.

Another strength of the U.S. grading system is its ability to provide a uniform method for communicating a mutually understood basis of quality between buyers and sellers.

It is in this context that blending of grain is useful in providing uniform quality demanded by the buyer. While the U.S. grain grading system provides a stable basis for trading commodities, the grain standards are also dynamic and responsive.

FGIS is required to conduct a public review of each of the standards every 5 years. But in reality, the grain standards are examined continually, and rulemaking proposals are considered in response to suggested changes.

No less than eight major grain standards were reviewed through the rulemaking process in 1984 alone. One other point needs to be made about the grain standards. Rightfully, they do not address every quality characteristic of grain, but rather, are a reference point upon which buyer and seller of grain can place additional

⁹ See p. 131 for the prepared statement of Mr. Cotter.

quality demands. Within this system, buyers and sellers can, and do request, specific quality factors which meet their needs.

We are supportive of efforts to develop additional tests that may be meaningful to end-users of grain, so that FGIS may offer these tests to interested parties, so as to provide official, but not grade determining, criteria.

In this manner, additional information on grains would be available without burdening the base or reference point on which grain is traded.

Now let me turn to our specific proposals for change. Dockage reporting in wheat. First, the National Grain & Feed Association recommends that dockage in wheat be reported to the nearest one-tenth percent.

We believe a change in reporting dockage to the nearest one-tenth percent will most accurately describe the actual dockage in wheat.

Uniform barge loading plan and sampling. Second, we support and will urge the Federal Grain Inspection Service to develop and institute a rulemaking on a uniform barge loading plan to provide ranges or limits on various quality factors to improve uniformity in grain shipments.

We believe the uniform barge loading plan will reduce the variability in moisture and other quality characteristics of grain loaded aboard barges. The resolution of this issue is a major step.

Reporting protein in wheat. We support a proposal to report protein in wheat on a constant moisture basis of 12 percent, instead of the current method of reporting wheat protein on a variable moisture level.

This change will enable the grain marketing system to more easily compare different protein levels in different lots of grain.

Now in our written testimony we have summarized our positions on a series of bills concerning grain quality. Mr. Chairman, we support your legislation, S. 1121 prohibiting the return of grain dust or grain-related material to the grain stream at export port elevators, except to conform to export contract terms, your bill recognizes the necessity of blending to permit foreign buyers to purchase the quality and uniformity of grain they desire and request.

In conclusion, the National Grain & Feed Association pledges to continue its efforts to evaluate and encourage the development of grain standards, inspection procedures, and grain handling practices to maintain and improve grain quality.

We believe the changes we have proposed in this testimony represent a major effort to address the grain quality issues in a constructive and meaningful way that will benefit all sectors of U.S. agriculture.

Senator ANDREWS. Thank you very much for an excellent statement. Mr. Cotter, coming from Corpus Christi, you are right close to the whole export procedure.

You have heard the discussion, earlier today, about the problem when you blend two dissimilar lots of grain, and moisture migration and the rest, while it travels overseas.

How can we address that? What can we do? You mentioned that there should be a regulation, a rulemaking procedure, that would answer this problem.

How? The disallowance of the blending of dissimilar grain? Would that be the way to do it?

Mr. COTTER. Well, sir, I do not believe that the disallowance of blending is the answer. Grains of like grains should be and continue to be blended to provide a market for those grains that otherwise might not—

Senator ANDREWS. Like grains, yes, but not allow the blending of, say, No. 2 soybeans with rain-damaged soybeans, or 17 percent moisture wheat, or 18 percent moisture wheat, even in a major lot of 12 percent moisture wheat. You feel that would be the dissimilar type blending we are talking about?

Mr. COTTER. Oh, you are talking about—I misunderstood your question. It needs to be addressed and should be looked at, and we, in the NAEGA workshop, alluded to by Mr. Allen, are recommending to FGIS that they look at these particular aspects.

Senator ANDREWS. Mr. Allen, do you have any comments on this kind of way of resolving? You operate, in Enid, OK, one of the largest, shall we say, assembly points for grain, and you must be confronted on a day-by-day basis with dissimilar lots of the same commodity. How do you handle those?

Mr. ALLEN. Well, sir, I think the reason for some blending tolerance is so that the different types of wheat, or other grains, can be handled.

I am not aware, personally, of Union Equity ever having received any complaints about those items that you describe, and since we do not handle soybeans, with all respect, we try to be extremely quality conscious, and restrict the amount of moisture as it is received at the terminal, so that we will not have those problems of the high moisture spoilage en route.

I guess our view is, the standards should be such as to allow the marketplace to function. I think the ultimate marketplace, internationally, would decide what our foreign buyers want to contract for, and they have the absolute right to buy as restrictive or as liberal of grades, in any area, of wheat or other grains as they like. So, I think the marketplace will determine what their tolerances are, as well as internally, you mentioned on the domestic side. I think, however, without a thorough investigation of the ultimate effect, if we are too rigid on our standards, I think, regrettably, the producer will be the ultimate loser because a good portion of our crop production may not have a marketplace anywhere, if we tighten the bolts down, where there can be no blending, and saving, if you will, of much of the crop. That is what we hear from our producers, to a large degree, as a real concern.

Senator ANDREWS. Well, Mr. Allen, how many bushels does one of those big concrete silos that you have got down there at Enid hold? What does your big bin hold, in bushels?

Mr. ALLEN. Oh, gosh, the four elevators hold 50 million bushels.

Senator ANDREWS. No, but I mean, what about one of the big bins? Take one of those bins, one of those cylindrical concrete bins. Does it hold 100,000 bushels?

Mr. ALLEN. No, sir. I was going to say maybe 25,000.

Senator ANDREWS. 25,000 bushels. Now Mr. Allen, your elevator manager, would he, for instance, load—when he was loading that bin, would he put, say, 5,000 or 10,000 bushels of 11 percent mois-

ture wheat in? Then would he put 10,000 bushels of 17 percent moisture wheat in, and then would he put 5,000 bushels of 12 percent wheat in?

Mr. ALLEN. No, sir, because in Hard Red Winter wheat, which is predominantly what we are, in our terminals scattered from Denver to Omaha to Fort Worth—internally, domestically. When we are unloading 300 or 400 cars a day in Enid during harvest, and maybe 10 to 1,200 trucks, the rapidity of that workload at each elevator, around the clock, would not permit that type of a shuffling to one bin or the other, and I, from my standpoint, there is not that much difference in the moistures, geographically.

Senator ANDREWS. No; but here we get into the very guts of the problem. Obviously you have got some high moisture grain that comes in and you have got bins that hold 25,000 bushels or more. My question is, does that elevator manager take that 17 percent moisture grain and put it in in the middle of a binful of relatively dry grain?

The whole bin could then be moisture content 13 percent but, would he do it that way?

Mr. ALLEN. First of all, sir, we would not take it that high. We would not take it—for example—over 14 percent.

Senator ANDREWS. No; but what you would do: You would dry it first, wouldn't you, if you got it in wet?

Mr. ALLEN. No, sir. We would blend it with drier, but we do not have a drying capacity per se in wheat, like you would in corn and some other grains.

Senator ANDREWS. But the point is, if you blended it, you would be very careful that it was blended totally and thoroughly, so that any individual 5 bushels had a uniformity of moisture content, would you not?

Mr. ALLEN. Yes, sir, you would. First of all—

Senator ANDREWS. You do that precisely, because if you do not do that, what would happen to that whole bin of wheat?

Mr. ALLEN. Yes, sir, that is exactly right.

Senator ANDREWS. Well, yes, sir; it would "go meow," wouldn't it?

Mr. ALLEN. Yes, sir.

Senator ANDREWS. And you would have nothing but a stinking mess?

Mr. ALLEN. That is correct.

Senator ANDREWS. And you have to be careful about how you put it together, because you are going to keep that grain in that bin for a few weeks and it is on your hands?

Mr. ALLEN. Yes, sir.

Senator ANDREWS. Now the point that we have developed is, at the port of export, that grain goes out of your hands and you blend it across a moving conveyor, and as Dr. Gilles pointed out, you might run for 10 or 15 minutes with low-moisture grain; then you might run for 10 or 15 minutes with high-moisture grain. And the best automatic sampler would accumulate a sample that, when blended together, ends up with 13 percent moisture—which is tolerant—maybe even 12.5 percent. Yet that slug of wet grain in the middle causes that cargo to spoil, even though the test is right.

Now how do we avoid that? You do it by good judgment in your individual elevator loadings, but how do we do that at the port of export?

Mr. ALLEN. Well, sir, I think we have the internal rigid requirements of how high we would take, and then, certainly, you would blend that and scatter that so it would not be a problem, a contaminant.

But I would like to explain. At the export elevator we have shipping bins and each of those shipping bins are graded and inspected, and they meet the requirements before they are allowed to go on ship, so there can be no—I believe you said earlier, plugging, if you will, in the vessel. We cannot do that. We have the shipping bins, we get the grades, and they are followed all the way to the ship by FGIS before they are released.

So I think if there is any blending of the moisture within acceptable tolerances, at the time they are received, so that they will not cause a problem once you get them in the elevator—because you are right: If we keep them for many, many months, we cannot afford to have a problem with that moisture.

Senator ANDREWS. For a few weeks they will go out of condition.

Mr. ALLEN. Yes, sir.

Senator ANDREWS. Mr. Cotter, being as you are right at the port of export, Dr. Gilles testified that there is no prohibition of moving into your facility some lots of, say, 17 percent moisture wheat and some lots of 10 percent moisture wheat.

If you loaded those lots into the hold of a vessel, and you loaded the 10-percent wheat and then the 17-percent moisture wheat, that grain would go out of condition in a hurry.

Is there anything in the export standards that would prohibit loading that way, and how do we write it—well, I guess I learned a long time ago, you know, the answer to the question. I know there is nothing in the grain standards now to prohibit that kind of loading.

What I am trying to get at is, from your position as an expert in this field, how would you suggest we write grain standards so we prohibit that kind of situation? We have already heard, of course, from Mr. Allen, and in essence, he said that the good judgment of the operator obviously would keep a 10,000 bushel lot of high-moisture grain to be put in between some dry moisture grain, top and bottom, because the stuff would go out of condition.

But how do we prohibit that in an export loading technique?

Mr. COTTER. Well, sir, at the export location we have to practice the same good management practices alluded to by Mr. Allen.

Senator ANDREWS. Well, you have to and we hope you do, but there are not any specific regulations that force you to do it, isn't that true?

Mr. COTTER. No, sir, there are not. No, sir.

Senator ANDREWS. So an unscrupulous operator today would have no penalties, other than the penalty of a dissatisfied customer, down line, if he followed that tactic?

Mr. COTTER. That is correct.

Senator ANDREWS. There is no prohibition in the present grain standards, or in the export, shall we say, policing powers of Dr.

Gilles, that prohibit the kind of plugging of a shipload of soybeans that we talked about earlier on?

Mr. COTTER. No, sir; there is not.

Senator ANDREWS. How would you suggest we draft regulations, or put together a law that would prohibit that?

Mr. COTTER. I really cannot answer that, to the extent of coming up with wording, specific to a bill.

Senator ANDREWS. But do you think it would be a good thing to do?

Mr. COTTER. I think it would be a good thing to work with the Federal Grain Inspection Service, to come up with some type of rulemaking within their framework of jurisdiction, to see if there were not some ways it could be done; yes, sir.

Senator ANDREWS. Dick, do you have any—as a farmer and an individual who represents one of the major farm organizations in this country—do you feel there would be any objection from farmers to a tougher type of Grain Standards Act all the way around?

Mr. KONZAK. No; I do not, but I would add another element to the dialog, and that other element being that as we farmers produce our product, if we produce this 11 or 12 percent moisture grain that you are speaking of, we are producing that at a discount in reality.

We are not paid on the dry matter basis. Somewhere along the line this becomes an ingredient, so to speak, of this blending process, and that should also be classified as a premium, as well as when we produce—as an example—50 pound barley, or more so in the case of wheats, where we produce 61 to 62 pound wheats—where No. 1 Hard Red Spring has 58 pounds. These then are immediately downgraded to No. 1. That is the minimum standard.

Senator ANDREWS. But we are docked for the below minimum.

Mr. KONZAK. Correct.

Senator ANDREWS. What you are pointing out, then, is that an unscrupulous exporter could in effect blend off grain that costs \$3 a bushel—in the case of high moisture content where they could run about 50 cents or so a bushel—blend off into an export cargo this grain that he has gotten from a farmer, or from some elevator down the line.

And he does it under the excuse, quote, unquote, of saying, "Well, we provide a valuable service because we give the farmer a market for that grain." Yet, he provides a valuable service to himself because I would estimate that he could pick up as much as a half a million dollar profit on one boat, by this kind of plugging, under the rules that we now have.

Isn't that essentially true?

Mr. KONZAK. This is true, and I would add another element to that, and that the trade industry has the best of two worlds. We discussed the dockage system. As the grain is exported, it is rounded down at the present time to the nearest half a percent. In our unique area, when grain is purchased, if it has any degree of dockage, in most cases, except at the terminals, automatically, 1 percent dockage. So basically, you have a minimum of 1 percent dockage that is given in effect to the trade from the time the grain leaves the farm. South of say, Aberdeen, a different system of pur-

chasing grain there, is that the elevator average system is used, and not a specific dockage.

But in our Upper Northern Plains, the individual dockage system is used, and, as an example, if we had a half a percent, or 4.9 percent dockage at a terminal, it would be a half a percent.

If this were at the export, it would be zero percent.

Senator ANDREWS. But while the manipulation of dockage, up or down, and using the half a percent with a swing, can result in, shall we say, a little extra bonus of 20 or 30, or maybe even \$50,000 on an export boatload; the manipulation between the types of grain, moisture content, out of condition, or a low standard, as with a "soybean caper," is where the big bucks are. That is where you can pick up \$500,000 by doing this kind of blending.

And it would appear there is a far greater temptation to play fast and loose with the rules, shall we say, than straight dealing. One can push the limits of grain standards to the hilt by plugging loads with high moisture, out of condition, sprouted or some other kind of damaged grain to push to the maximum tolerances allowed. Wouldn't that be the bigger bonus than playing with the dockage?

Mr. KONZAK. I have agreement with you, but this past week, this past Sunday, I was in Canada visiting with some of our Canadian neighbors, and I was rather interested in the dialog, and that this certified seed producer was loading out Fort for Peace, 40-kilo bags off of his plant on the farm. He indicated that the same standards on his farm, as for the export of Canadian grain was present. So the buying system was consistent all the way.

He then informed me that in his immediate area, there were eight processing plants of similar nature; that the consistency of the grading system had encouraged onfarm establishment of clean grain in Canada, and it followed through the pipeline.

Senator ANDREWS. And you feel, as a producer, that producers will accept a grain quality standard rule that enforces those things right out at the farm just as much as—in the local community elevator—just as much as at the export elevator?

Mr. KONZAK. I do, because I just got through handling a few cars of grain, and I have the examples here. The grain that I produced was Hard Amber Durum. The dockage was one-half of 1 percent. Actual dockage was less than one-tenth of 1 percent. This came directly from the field.

Senator ANDREWS. But that is rounded up.

Mr. KONZAK. Rounded up to a half a percent. The test weight was 61.3. This was to the tenth of 1 percent as to the test weight, but it still exceeded the Durum standards by a pound and three. These were "freebies" that I provided the grain trade.

Senator ANDREWS. Thank you very much, gentlemen. We appreciate it very much. Our next panel is Myron Laseron, president of North American Export Grain Association, and the executive vice president of the World Grain Division of Continental Grain Co.; and Donald Mennel, the chairman of the Mennel Milling Co. from Fostoria, OH; and Cecil Watson from Cavalier, ND, representing the U.S. Wheat Associates and the North Dakota Wheat Commission.

Let me welcome you. Let me assure you that you can summarize your statements. Your whole statement will appear in the record

as if given in its entirety and we welcome you here today for the knowledge you can give us on this problem that affects all of us, and your reaction to some of the testimony that went before.

I also know that your testimony is already prepared. By letting you put it in the record, it gives you the maximum amount of time to interact and make sure the committee has the benefit of any rebuttal you might want to make toward the testimony that has gone before.

STATEMENT OF MYRON LASERSON, PRESIDENT OF NORTH AMERICAN EXPORT GRAIN ASSOCIATION, AND EXECUTIVE VICE PRESIDENT OF WORLD GRAIN DIVISION, CONTINENTAL GRAIN CO., NEW YORK, NY, REPRESENTING NORTH AMERICAN EXPORT GRAIN ASSOCIATION

Mr. LASERSON. Certainly I appreciate the opportunity to appear before this committee, Mr. Chairman, and in the interest of time I would ask that my testimony—

Senator ANDREWS. It will appear in the record as though you had uttered every word.¹⁰

Mr. LASERSON. What I would like to do is simply to state, really, that we do support the Senate bill as prepared, as written, because what it does is enforce what I consider to be sound elevator practice.

This is really all that it does. We have addressed this issue several times during the course of this morning and sound elevator practice is critical.

The other issue that we have been talking about this morning has been grade standards, and I would emphasize what others have said before me today, that our organization is sponsoring a workshop, a series of workshops that is dealing with this issue of grade standards.

It is obvious to everybody in this room, by now, that grade standards, if they are changed—and some of them should be changed, and we support the dockage discussion that we have heard before—will go all the way from the farm to the port elevator.

We support whatever there is a good consensus for in that respect, but in elevator practice, which is really what I want to talk about today, your bill addresses that just exactly the way it should and what it does is it forces other people to do what we in fact have been forced to do for commercial reasons, and I would like to take a minute to explain that.

It is very true, as Dr. Gilles has said, and as others have said, that when we sell grain from the United States we sell on the basis of a Federal grain inspection certificate at loading.

But it is equally true that our major buyers, some of whom have been excluded from buying American grain this past year, as you well know, these buyers insist on terms that, if they have a problem with the grain at discharge, they have a right, and it is in their contract, and it is our understanding with them—they have a right to come back and talk to us, and by talk, it is not just conversation; it is money on the table. You discussed several times your—

¹⁰ See p. 136 for the prepared statement of Mr. Laserson.

self this morning, Senator, the Chinese soybean story, and I would like to comment on that.

We were not involved in it; we were not the shipper; we were not the elevator that loaded the soybeans. In a way, we benefited from what happened because after the Chinese had this experience, they came to us and they talked to us about that. And they asked us, would we sell them some soybeans on the basis of their contract terms, and improve the quality from the standard. Instead of buying No. 2 beans, would we sell them a better than No. 2 bean?

Our answer was, "Yes," at a price; at a premium. We bargained about the premium and negotiated the premium. We finally agreed on the premium and we sold the beans and shipped better than No. 2 beans to the Chinese and the cargo has arrived and they are happy with that.

In the case of the cargoes that they complained about, they complained not because of the mixture of damaged beans, which may or may not be the case—I do not know because we did not load it.

They complained because the damage, at arrival, was different than the damage that appeared on the certificate when they bought it. And I think there is evidence to suggest that when anybody will look at that file sample, at a loading elevator, they will find that there was perhaps a mistake made, an honest mistake. Damage is a matter of judgment in many cases, and different inspectors, at different times, will look at damage and come to different conclusions.

In the case of the Chinese, they complained only because they bought 3 percent damage; they received, in one case, 6 percent damage; in another case, 10 percent damage.

They extracted a full penalty from the shipper, which was not the loading elevator in this case, but from the shipper, full penalty for that error.

It costs hundreds of thousands of dollars. Now with regard to the windfall profits that have been alluded to, that hundreds of thousands of dollars came directly out of the exporter's pocket.

He had no way of benefiting from that because he bought it from people who bought the beans in the country and loaded it.

That man who loaded the beans may have done some blending, may not have done some blending, but in the event he did, mathematically, if we are talking about 3 percent of damage, which is what the cargo was loaded for, if he put entirely these damaged beans that has been described here, the maximum that could have been put in would have been the 3 percent. In all likelihood it would have been considerably less than that.

In addition to that, he probably sold the beans at some discount to the price of No. 2 yellow beans otherwise, he would not have made the sale, and that is the way the market averages itself out.

I just wanted to take the opportunity to answer your questions about the Chinese story.

Senator ANDREWS. That is most helpful to us.

Mr. LASERSON. I really think this thing was settled on a commercial basis, and I am all in favor, as I hope you are, of settling these things in a commercial way, whenever it is possible.

Senator ANDREWS. In all of the export instances from the United States, does the purchaser have the ability, the recourse back to the shipper?

Mr. LASERSON. Not in all cases but just as—

Senator ANDREWS. But this particular contract, the shipper was obligated to make good?

Mr. LASERSON. Both morally, and, in this case, if he has the same contract I do—and I do not know that he does—contractually.

Senator ANDREWS. But not all grain is shipped from the United States under that kind of contract?

Mr. LASERSON. Absolutely, sir; but just as the United States is responsible to keep its reputation up in terms of integrity—and that is what this hearing is all about—

Senator ANDREWS. That is right.

Mr. LASERSON [continuing]. So is the individual company responsible to keep its integrity up; otherwise, it goes to our competition within the United States.

Senator ANDREWS. That is true, or competition from somewhere else in the world. The reason I wanted to make sure that I understood what you had said, is because my understanding, in talking to others who have been concerned about this, is that a foreign buyer was frustrated because there was no recourse, not in this case, but in another case—and just turned away from U.S. grain. So that may be the case, but not in this particular instance.

Mr. LASERSON. I think our history would indicate otherwise. He has recourse to the shipper, to himself, I should say. If he does not have recourse, he does not buy from him again, but he will go to somebody who he considers reliable, within our system.

Senator ANDREWS. In other words, your firm would have no problem with a stipulation in U.S. grain law, that the shipper, the handler, the merchant, so to speak, would be legally responsible to make good if that grain did not satisfy the purchaser?

Mr. LASERSON. I would have only this problem with it, sir. In the event it was written into contracts by law, as you have suggested, and not by negotiation, that would mean every buyer, some of whom—and I am interested in that—some of whom are perfectly happy to have contract terms otherwise, would end up paying a higher price.

Because very clearly, I am going to price grain differently when I am subject to a destination grade. Just as the shipper in North Dakota is going to extract a higher price from me if he sells me grain going to New Orleans on a New Orleans grade as opposed to a North Dakota grade.

Senator ANDREWS. But you see what you have done. You have sparked our imagination, because you have found for us an alternative to trying to figure a way of getting a uniform grain sampling that is accurate.

Mr. LASERSON. Excuse me, sir. I did not find it. The commercial world has found it. It is as old as history is.

Senator ANDREWS. But you have pointed out that the commercial world—and this is always true—nongovernmental operations file a lot more answers than government. You do not get the “good” answers here in Washington; you get the answers out in North

Dakota and from the people who have been engaged in this business for years and years.

And in essence, what you are suggesting, is that a recourse to the shipper, the merchant, would be one way of solving the problem of plug loads and substandard quality, and all of the rest.

Mr. LASERSON. And I am saying that recourse is available to anybody today who—

Senator ANDREWS. Who asks for it.

Mr. LASERSON. Who asks for it.

Senator ANDREWS. But sometimes that purchaser, and the ones I have talked to, sit over there and feel that we are protected by the U.S. Grain Standards and they do not ask for that recourse.

Mr. LASERSON. Excuse me. Many of them ask for it, find out they have to pay for it, and decide they do not want to pay for it. Now there is a difference here. There is a difference. There is a greater risk in selling grain on destination terms. We all know that. A lot of things can happen.

Senator ANDREWS. But it certainly stimulates careful loading of the ship.

Mr. LASERSON. Just anecdotal, I had a shipment of grain to the Russians this year. I had two ships, where the Russians complained about quality of corn at destination. I did not accept their claim just because they said so. I investigated.

I found out in the one case, there was a problem with the Russian flag ship that was presented; the hatches had problems. We took, gave them that evidence; the claim disappeared.

In the second instance, there was a ship that was loaded, and they had problems with it at destination, but when I traced it, the ship had disappeared for 30 days on the voyage. I pointed that out to them; end of claim.

Now, if we give them carte blanche, in a law, to make claims, the Russians or anybody else, we are going to have serious problems that will affect the cost and the competitiveness of U.S. grain elsewhere. We do not want to do that. What I am trying to point out is that the specific problem that aroused your interest was settled in the proper way, and is not a problem. Others are settled the same way; the ones you do not hear about.

Senator ANDREWS. We appreciate your testimony. It has been a great help to us. Next, we will hear from Donald Mennel, the chairman of the Mennel Milling Co. of Fostoria, OH, who is representing the Millers' National Federation. Good to have you here.

STATEMENT OF DONALD M. MENNEL, CHAIRMAN, MENNEL MILLING CO., FOSTORIA, OH, REPRESENTING MILLERS' NATIONAL FEDERATION

Mr. MENNEL. Thank you, Mr. Chairman. I do appreciate this opportunity very much. The Millers' Federation represents 85 percent of the U.S. flour milling capacity.¹¹

The U.S. flour milling industry is the single largest customer of U.S. wheat, and I might point out that we pay full price for it.

¹¹ See p. 121 for the prepared statement of Mr. Mennel.

The bill, in its barebones form, does not purport to affect American domestic customers. However, if we remove all of the dirt and material that is not grain, that is shipped overseas, the domestic people are going to absorb a good deal of that.

So we believe that we have an interest in this. Philosophically, however, we cannot disagree with your bill. We are in favor of anything that will clean up the grain that we have to mill. There is only one standard of wheat in the United States, for both domestic and for export. We, as domestic users, have exactly the same frustrations that the exporters find in their customers.

We want clean grain, too. For the past 6 years we have worked with FGIS and worked very hard with them, trying to amend the standards on wheat.

I could go on all day about bugs. We do not like bugs either. We do not like to eat them. We do not like to grind them. We do not think that live bugs are any different than dead bugs.

Senator ANDREWS. When you grind them they get kind of dead, don't they?

Mr. MENNEL. They are pretty dead. Actually, a dead bug makes more fragments than a live one, strangely enough.

Senator ANDREWS. It adds a little protein to the end product.

Mr. MENNEL. It certainly does, but does not make it very appetizing. We do not want to address that, though, today, particularly. We will continue to do this on a continuing basis.

The other major concern of flour millers is dockage. And I might say that dockage, in the area where I am from, large segments of our industry are on a one-tenth basis now, and have been for a number of years, with almost no detrimental effect to their relationship with the farmer. So it is a practical solution.

We are very much in favor of tightening of dockage. The dockage thing has been studied to death. It has been studied many times. In 1983 it was studied, and all of the major people, that were really of major concern, the producer groups, the National Association of Wheat Growers, U.S. Wheat Associates, Farm Bureau Federation, and the Millers' Federation—were all in favor of change. Nothing happened.

Twenty-four individuals testifying at a FGIS meeting in January of this year, 22 of them called for a change. Now we are about to restudy it. I hope this time something comes of it.

The domestic flour miller is proud of his tradition of producing wholesome, high quality products. We think we are very fortunate that the American wheat farmer has produced a wide variety of wheats for the wide variety of products that we have, and we are very much in favor of that. And we support the farmers, and the handlers, to preserve the quality of wholesomeness of wheat.

The current standards provide an incentive to blend dirty and clean wheat, to make something that is called "clean wheat." We do not like that. We have to fight insecticides as well as grades. Remember, possibly, the EDB thing, the problems with insecticides and the fact that most good insecticides are now eliminated.

We believe that the Federal Grain Inspection Service, charged with evaluating the effectiveness of the wheat standards, and keeping them current, is spending much too much of its time defending

the adequacy of the existing standards while denying the legitimacy of the customer complaints.

We thank you again very much for our opportunity to share our views with you.

Senator ANDREWS. Thank you very much for an excellent statement. Let me make sure that I have understood what you are saying in support of the bill.

The overall thrust of your statement is that there is a great need to "clean up our act" in grain grades, not just at the point of export, but within our country, so that the American millers have better standards on which to purchase their grain. Is that in essence—

Mr. MENNEL. You understand me, precisely.

Senator ANDREWS. I thought I did. And what you are saying, representing the millers, the major customers—you know—foreign customers are important, but our domestic customers are extremely important for farmers as well; that we will help our domestic customers in setting a better standard than we have had in the past?

Mr. MENNEL. Provided those standards cover the entire field. If they only affect export, then it may have the opposite effect, domestically.

Senator ANDREWS. In other words, if we export our good quality wheat and shunt it away from our good domestic customers, then we are "cutting off our nose to spite our face?"

Mr. MENNEL. Yes, that is certainly one way to say it.

Senator ANDREWS. Well, on the farm we would say we are being damn foolish, if we "kick sand in the face" of our good local customers, to look at that "new girl" down the block. In essence, what you are saying is that we have a challenge here, in the United States, and that these grain standards are simply too old, too archaic, and too nonrepresentative to do the job for American farmers and American processors.

Mr. MENNEL. We agree.

Senator ANDREWS. I "love" these kinds of witnesses. I am not leading the witness. Really, I mean, in this room, I have been accused a few times of "leading the witness," and being somewhat biased, and some other things. But, you know, we have had an interaction between witnesses that is so effective for us to make a complete record, and also, with the questions that have been going on, I am glad that we are making this in public and the press can disseminate one, that there is a problem, two, that there is a way of solving it, and three, that we do not have to "throw out the baby with the bathwater," which is in essence what our witness from Continental Grain said.

Mr. MENNEL. Could I add, just briefly?

Senator ANDREWS. Surely.

Mr. MENNEL. We are in a free enterprise system and I am certainly very happy about that. In the free enterprise system that we have in the grain system, we do not require Federal grades behind certain points in the whole system and I do not advocate that, either. But if we do have standards which are covering the entire area, marketing will follow those standards. So the tightening of

the standards will in fact "clean up our act," both domestically and export.

If it only affected the export, somewhere behind the export elevator, there would be a sorting and a cleaning, and the distribution of the dirt would be contributed domestically, which would raise the cost to the American consumer because the American consumer is not going to eat that dirt, either.

Senator ANDREWS. Well, I appreciate that statement. I also appreciate your support of the free enterprise system.

The free enterprise system also necessitates that we put stoplights on certain corners, where we lose a little bit of our freedom to benefit all of us, and that I guess is what we are looking at here.

Our final witness, Cecil Watson from Cavalier, ND, representing the U.S. Wheat Associates and North Dakota State Wheat Commission. One of my fellow farmers from North Dakota. It is good to have you with us.

STATEMENT OF CECIL WATSON, CAVALIER, ND, REPRESENTING U.S. WHEAT ASSOCIATES AND NORTH DAKOTA STATE WHEAT COMMISSION

Mr. WATSON. Thank you, Senator Andrews. Because of the previous testimony given today, I am going to change my remarks, slightly.

Senator ANDREWS. See, I put you in this cleanup slot, so that you can put your whole statement in the record and then you can comment on anything, or everything.¹²

Mr. WATSON. All right. I am speaking on behalf of U.S. Wheat Associates. They are a market development organization for wheat producers in 14 States, and I am a producer of Hard Red Spring wheat in northeastern North Dakota.

Along with others, U.S. Wheat has been in the forefront of asking for changes in the U.S. grain standards for wheat and we compliment you for bringing together all these people who have, for a long time, wanted changes in the grain standards.

We feel that change is very important to our industry and to the entire marketing chain, from the exporter back to the farmer.

Because of and to help solve the problems that are occurring, U.S. Wheat is recommending more accurate descriptions of non-wheat material in our grain. While the dockage method is used in the United States to measure impurities not very many of our customers have dockage testers. They certainly do not have the same kind of equipment to measure impurities that we do, in most cases, so we are not operating on the same wavelength when we talk about dockage to a foreign customer. We also support expression of protein on a fixed moisture basis to be consistent with other major exporting countries. Other people are doing it; we think we should as well.

We think that we should provide a more uniform delivery of wheat through regulations that would tighten up our shiploading methods, especially on large oceangoing vessels. One customer usually does not buy the total cargo, so individual millers who receive

¹² See p. 126 for the prepared statement of Mr. Watson.

only part of the shipment, are at a certain disadvantage if they get a part that was below average quality of the cargo.

We also believe that the U.S. measuring system should provide economic incentive to clean the wheat and keep it clean at every step of the marketing chain, from the farmer on through.

We also would like to point out that we are very much in favor of the marketing and merchandising system that we have in the United States. We recognize that price, as well as quality, has an influence on the competitiveness of wheat. We hope that when our prices are more competitive with other competing countries, that we will have an advantage because we have improved our quality.

We believe in the rulemaking process established by the Federal Grain Inspection Service Act. Wheat producers, in meetings over the past year have decided, to support expression of dockage to the nearest one-tenth percent. We want that change as well as expressing protein on a constant moisture basis to be an effect for the 1987 crop year.

We also think that in addition we need to describe dockage in a little bit different method. If necessary to provide a better description of nonmillable material U.S. Wheat would support combining dockage into the foreign material grade factor.

I previously mentioned the subloading tolerances and procedures. We think they should be tightened and we feel that the grain industry itself should be the leader in making these changes. If the industry cannot or will not do it themselves, we will support legislation that will bring grain quality standards into line.

I live even closer to Canada than Chuck Ottem does. I can see the Manitoba hydrotower from my tractor seat, and I do not envy their system at all.

The Canadian Wheat Board, has an advantage when they have sprout or frost-damaged wheat. They can create a new class and say "We've got some special bin wheat; we're going to sell it at this price." So they have that advantage.

The Canadian spring wheat farmer does not get protein premiums for his wheat like I do. In fact they are sneaking wheat across the line, into the United States, some of their unlicensed varieties and selling them in Cavalier, ND, right now. In doing so they are paying a checkoff and supporting our market development activity. [Laughter.]

The Canadian dollar this morning was 68 cents in the hotel that I stayed—a little bit over 68 cents and that is currently an advantage for them in selling overseas.

The Canadian Wheat Board uses the protein in their spring wheat as a marketing tool. They consistently deliver higher protein than what their certificate asks for. But the farmer is not getting paid for it.

The last comment I would make about the Canadian system is that I would sure like to have their freight rates going out of Altona to export terminals.

Senator ANDREWS. Well, the Canadians, I might point out to those of you who do not live next to the Canadians, that they enjoy, I would imagine when you get to the west coast, about a 40-45 cents a bushel benefit and then they get another benefit because of the shipment in foreign bottoms. Also, they get about a buck a

bushel on us because of the exchange rate between Canadian currency and ours. They have got about a two-buck layup on a North Dakota farmer. That is not bad, and that is one of the problems. But when you say that you do not appreciate the Canadian system, that Canadian system of course is not what we are talking about when we are talking about export quality.

The regulations on export quality would move back the benefits to American farmers because the Canadians, going through the Wheat Board, do not get these premiums for high protein, and all of the rest.

But when you mention the Canadians export their frost-damaged wheat, they are very careful, as I understand it—and correct me if I am wrong—they do not blend it off with better quality of wheat to get some kind of a hodge-podge, which is what we were talking about earlier. Is that true?

Mr. WATSON. As I understand it, they create a special class—

Senator ANDREWS. They call it a special class, and the buyer beware. Let me ask you one final question. The farmers that you speak for will support stricter grain standards, in your mind?

Mr. WATSON. That is correct.

Senator ANDREWS. And finally, the Nebraska witnesses offered a specific example of the type of grain standards they would like to see. You mentioned in your testimony that we should change the grain standards. Would you provide for the record—and that would mean drop me a note in the next week or so—what type of grain standards specifically you would support.

Mr. WATSON. At the U.S. Wheat Associates meeting, the North Dakota Wheat Commission introduced the very thing that Nebraska is talking about. The only difference is their reference to it being illegal to add unmillable material to wheat anywhere in the U.S. marketing system and their position that wheat testing under 11 percent moisture should receive a premium. These two issues have not been voted on by our board of directors.

Senator ANDREWS. So what you are testifying to is their type?

Mr. WATSON. That is correct except for differences I noted.

Senator ANDREWS. Thank you for that clarification, Mr. Watson.

Mr. LASERSON. Senator.

Senator ANDREWS. Go ahead.

Mr. LASERSON. I was just going to make one remark about this Canadian system of grains. What in fact they do is, they do not mix—as you suggested they do not mix—but they mix another way.

They are inventing the lower grades in many parts to capture markets and justify lower prices. So they are blending good wheat with bad wheat; it is not bad wheat with good wheat; they are going the other way.

And they are selling the lower grades and they are calling it feed wheat, and they capture the markets in doing that.

Senator ANDREWS. But they are not allowed to put the frost-damaged wheat in with the stuff they call No. 2?

Mr. LASERSON. No; except it goes the other way, so the end result is the same. In addition to that, the increase of market share, that Canada and Australia have had over the past 2 or 3 years, over the

time period we are talking about, has been almost exclusively to those markets where the United States is not selling, that is, the Socialist countries, and as you know there are many reasons for that, including the BICEP Program.

Senator ANDREWS. That is right. I appreciate that very much. I have a statement from the American Soybean Association that I will place in the record. And I also have one from the National Farmers Organization.¹³

Thanks to all of you who were witnesses. The subcommittee will adjourn, subject to the call of the Chair.

[Whereupon, at 12:33 p.m., the subcommittee adjourned, subject to the call of the Chair.]

¹³ See p. 128 for the statement from the American Soybean Association and p. 123 for the statement from the National Farmers Organization.



APPENDIX

STATEMENT OF HON. HOWELL HEFLIN, A U.S. SENATOR FROM ALABAMA

Mr. Chairman, I am certainly pleased that you are holding hearings on this very important issue. I look forward to hearing the comments of those testifying today. .

Over the past several months, I have heard more on the quality issue of grains being exported from the United States than ever before.

Reports that I have seen from the American Soybean Association, from a recent trip to Europe, is certainly disturbing. European soybean processors are up-in-arms over the poor quality to soybeans being shipped to them from the United States. According to the European processors, shipments of American grown beans contain large quantities of damaged and shriveled beans which, when crushed, produce such poor quality oil that many European margarine makers and soy oil bottlers refuse the accept delivery. The results of this poor quality is being felt today. European soybean producers are turning to South American soybeans. Other oil processors and bottlers as well as margarine makers are choosing the alternative oils that are in abundant supply in Europe.

It is my understanding that the price foreign soybean buyers pay for U.S. beans is based on what the Federal Grain Inspection Service inspectors certify was loaded on to the ships here in our ports. When the buyers receive the beans in Europe and finds the beans to be of lesser quality than FGIS certifies, that's the buyers loss. That is certainly no way to treat your customers.

We need to pay close attention to this serious problem. Especially in this time when we are trying to enhance the export capabilities of all of our agricultural products.

I am hopeful that the hearings today will be the first step in finding a solution to this serious problem that is certainly bad news for U.S. soybean and grain suppliers. / Mr. Chairman, I look forward to the testimony that is to be presented today.

Thank you, Mr. Chairman.

**MATERIALS SUBMITTED FOR THE RECORD BY U.S. REPRESENTATIVE
COOPER EVANS FROM THE THIRD DISTRICT OF IOWA**

Comments from readers of Farm Journal regarding the need to improve U.S. grain standards for export:

Purdue University veterinarian.--"I first became aware of the inferior quality of grain the U.S. was shipping abroad during a trip to Korea in November, 1985, to assist Korean dairymen with some of their herd health problems."

Wisconsin farmer.--"Everyone thinks that any problem to be solved has to cost a lot of money. How much would it cost to get busy and change the standard for our grain? There is no excuse for the quality of our products being less than that of some other country."

Iowa farmer.--Tightening grain standards "Could be the best help we farmers could get this year."

Wyoming wheat producer.--"I am docked severely if I try to market grain that exceeds 1 percent dockage. Still, we are allowing these exports to actually contain up to 9.9 percent dockage. We sell grain with 10 percent or less moisture. Again this gets to our foreign customers containing 13 percent moisture."

Tennessee farmer.--"Enclosed you will find a sample of the trash my local elevator was mixing with soybeans tonight off a large trailer onto a semi truck. The workers actually scooped mud off the ground and threw in with this junk before it was put on the semi. I saw all this while waiting to unload my truck of clean soybeans from the field."

Illinois farmer.--"We all suffer from the arrogant and shortsighted policies and actions of our exporters and shippers."

North Dakota farmer.--"Canada cleans its grain before shipping while U.S. exporters add dockage, dirt, water and junk before shipping."

Illinois producer.--"With all the problems American farmers face today, to have our products adulterated by profit gouging grain exporters who ruin our reputation as reliable suppliers of quality grains. It sickens me."

New Mexico farmer/ethanol plant worker.--"In watching the trucks unload, local grain bought from local farmers is always much cleaner. Grain from elevators is much dirtier. Where does this dirt come from? I don't know but I do know we need to tighten our grain standards."

Custom wheat harvester, Colorado.--"We haul grain to inland, river and ocean ports only to see grain shipped out that only faintly resembles the grain we deliver at harvest."

Aerial pesticide applicator, Missouri.--"I have personally witnessed grain dealers and handlers dumping dirt, rocks and rotten and wet grain in with No. 1 clean grain coming from the farm. I say nail these crooked bastards."

North Dakota wheat producer.--"A foreign exchange student from Japan couldn't believe the nice grain that came from the fields in the area". When it is unloaded in Japan it has sand and broken glass in it."

Iowa corn grower.--"The elevator pays me for No. 2 corn saying there is no market for No. 1. Let the exporters find a more appropriate market for their junk."

Nebraska farmer.--"I'm afraid that these exporters will retaliate against the farmers if things go against their will."

California producer.--"We should give the exact amount of foreign matter in a sample, not 'up to 0.5 percent'. Also, no blending of grain to maximum amount on allowable dockage."

Colorado wheat producer.--"It's time that 'grown in the USA' once again stands for a quality product."

Idaho producer.--"Improving our grain standards "would do more to help the farmers than anything I can think of."

North Carolina farmer.--"I take pride in raising and selling good clean dry corn, wheat, and soybeans. I am subsidizing the grain dealers."

Ohio farmer.--"I have delivered No. 1 yellow corn to a Great Lakes terminal only to be told it would be mixed with No. 5 trash corn and loaded on a ship. They would not pay a premium for No. 1 yellow corn. They are paying a premium for early delivery of wet corn without drying charge."

Kansas producer.--"How about a class action suit on behalf of farmers to recover lost income due to delivery of dirty grain?"

Federal Grain Inspector, Iowa.--"If an elevator would buy all No. 2 corn and load it on a barge, they would make money. They just buy lower quality corn and blend it with No. 1 and No. 2 corn in order to make money. With no premiums for No. 1 corn and dockage of farmers for delivery of less than No. 2 corn, the farmer has no incentive to raise and deliver better than No. 2 corn."

Nebraska farmer.--"Most of the major exporting companies are very vocal in their opposition to changing the grain standards. After all, would you want to change the rules that helped make you rich?"

Montana rancher.--"Japanese buyers this week were looking at our grain. They told us that they have climbed ladders to look in the bins and see the high quality only to be disappointed when the grain arrives in Japan and it is full of dockage."

Montana producer.--"Maybe the way to stop the shipping of dirty wheat is to require that wheat be cleaned like it is at the Canadian terminals in Vancouver."

Pennsylvania farm couple.--"We feel that we are being unfairly taken advantage of by exporters who blend inferior products to just meet standards and sell the junk at a profit."

Missouri farm couple.--"We can fight the drought, floods, insects and so on but we cannot fight this type of scandal."

Colorado country elevator operator.--"We are in conversation with six brokers representing six different countries who desire to buy wheat from the local elevators, pay a premium for it, monitor its shipment through loading aboard ship to get quality wheat for milling and feed purposes."

Louisiana farmer.--"I guess my efforts are wasted since my clean product is being blended to a final grade which is barely legal to sell."

Virginia farmer.--"The time has come to outlaw the adding of foreign material to grain and the blending of wet and dry grain beyond a certain moisture range."

Washington wheat producer.--"There should not be allowed any water added to the grain."

SUMMARY OF GRAIN QUALITY LEGISLATION BY CONGRESSMAN COOPER EVANS

The quality of grain exported from this country has taken on increased importance in light of our present farm crisis and the drop in export volume that we have experienced. I firmly believe that we must address this issue quickly and in a meaningful way. For this reason I will soon introduce a grain quality bill which would make significant improvements in current law. The bill's five major provisions may be summarized as follows:

1. DOCKAGE RECORDING

Our method of reporting dockage is in need of revision. I view it fundamentally immoral to deliberately and knowingly overstate the quality of grain on a consistent basis. However, our present system allows this as a matter of course. My bill would amend the Grain Standards Act of 1916 by adding the following language.

"In establishing standards for grain and procedures for the certification thereof the Administrator may provide for the rounding off of numbers relating to condition or quality, but such rounding shall be in a direction to understate the condition or quality of the grain".

2. CERTIFICATION REFUSAL

Foreign buyers have repeatedly emphasized that quality deterioration is greatest for any given grade when a shipment contains the maximum tolerances allowable under each grading factor. Loading in this manner can virtually insure that a cargo will be below grade by the time it reaches its destination. The bill therefore empowers the Administrator of the Federal Grain Inspection Service to refuse to certify for export a cargo, lot or sublot of grain when the Administrator has reason to believe that it will deteriorate significantly in quality enroute to a foreign destination due to a high average moisture content; a wide variation in moisture content among kernels; a high content of fines, dockage or foreign material; insect infestation; high temperatures en route to destination; or any combination of these or other factors which the Administrator believes will lead to significant deterioration of grain quality.

3. GRADE CERTIFICATION STATEMENT

The bill also addresses the common complaint of foreign customers that individual sublots delivered to them do not necessarily meet the grade designation set forth on the official grading certificate accompanying the total lot. To provide buyers with increased contractual leverage to demand some form of guarantee of the quality of their individual sublot, the following statement would be added to each official grade certificate:

"The official grade designation shown on this document certifies the quality of the total lot of grain at the time it was loaded for export and does not certify the grade of sublots derived therefrom."

4. FOREIGN MATERIAL RECOMBINATION PROHIBITION

To further insure high quality in grains intended for export, the bill would prohibit the recombination with grain of any dockage or foreign material that has previously been removed from

the grain when there is a possibility that such grain may be exported. Similarly, no dockage or foreign material of any origin could be added to any grain which might be exported when the result would be to reduce the grade or quality of the grain or to reduce its ability to resist spoilage.

While adoption of this provision would go a long way toward improving the quality of our nation's grain overall, it is important to note what it would not do. It would not prohibit treating grain for insect infestation or fungi. It would not prohibit export of dockage or foreign material removed from grain in the form of pelletized or processed livestock rations. Most importantly, it would not prohibit the blending of grain for the purpose of adjusting quality as long as the difference between the moisture contents of the grains does not exceed 4 percentage.

5. BONUS PAYMENTS

The bill would provide an incentive for delivery of high quality grain in the form of bonus bushels to both producers and exporters. Negotiable certificates entitling the bearer to an in-kind payment of 4 percent of the total lot of grain would be awarded to producers who deliver, into either commercial channels or into Commodity Credit Corporation stocks, corn which contains less than 1 percent broken kernels and foreign material (BCFM). Producers who deliver corn containing less than 2 percent BCFM would qualify for a bonus payment equal to 2 1/2 percent of the total lot volume. Similarly, for each export cargo officially inspected and found to contain less than 1 percent or 2 percent BCFM, an exporter would become eligible for a 3 percent or 2 percent bonus, respectively. Certificates would be redeemable through the Commodity Credit Corporation. No bonus would be paid on corn whose moisture content is not between 13 1/2 and 14 1/2 percent.

STATEMENT OF DAN MCGUIRE, DIRECTOR, NEBRASKA WHEAT DEVELOPMENT, UTILIZATION AND MARKETING BOARD

Mr. Chairman and members of the Committee:

My name is Dan McGuire. I'm the director of the Nebraska Wheat Development, Utilization and Marketing Board. Accompanying me today is Ervain J. Friehe, chairman of the Nebraska Wheat Board. We certainly appreciate this opportunity to testify on S. 1121 concerning U.S. grain standards.

The Nebraska Wheat Board is the agency of the State of Nebraska with the responsibility of protecting and stabilizing the State's wheat industry and the economy of the wheat producing areas. The Board is responsible for the policies and programs of the State regarding the development, promotion, utilization and marketing of wheat grown in Nebraska.

I want to commend you, Senator Andrews, for introducing S. 1121 and for taking this legislative approach toward correcting a serious problem facing U.S. wheat in the world marketplace. Put very simply, the problem is uncompetitive and outdated U.S. grain standards and grade factor tolerances for U.S. wheats compared to those of other wheat exporting nations. There is no mystery relative to why U.S. grain standards are uncompetitive. The grade tolerances simply allow unacceptably high levels of total defects,

dockage and wheat of other classes within the various grades. Currently, U.S. grade number one wheat can legally have 3 percent total defects and 3 percent wheat of other classes for a total of 6 percent lower quality or defective material and still be certified by the Federal Grain Inspection Service as grading No. 1. Dockage is not a grade factor and whatever level of dockage exists in a shipment is actually in addition to total defects and wheat of other classes. U.S. No. 2 wheat is allowed to have as much as 10 percent of total defects and wheat of other classes and still legally meet grade. Again, dockage is not a grade factor and is on top of these other factors.

Wheat growers and other grain producers across the United States have become increasingly aware of the disadvantage their commodities face as they are offered in the supermarket of international trade. U.S. farmers realize that importing nations are becoming extremely quality conscious and even more selective in choosing their sources of supply. U.S. grain producers believe that U.S. wheat and other grains are dirtier than grain exported by our competitors and these producers want Congress to do something about it. A recent grain producer opinion poll conducted in Nebraska by the nationally-known firm of SRI Research Center, Inc., found that 51 percent of Nebraska farmers believe wheat and other grains exported by the U.S. is dirtier than that exported by our competitors. Eighty four percent of all Nebraska farmers want the U.S. Congress to pass a law that will tighten U.S. grain standards so that wheat and other grains exported from the U.S. will be much cleaner, 92 percent of all farmers with an opinion favor such Federal legislation. The Nebraska Wheat Board believes the SRI-Nebraska producer survey to be representative of producer attitudes nation-wide. We believe that the silent majority of U.S. farmers are speaking in a loud and clear voice.

If we accept the fact that U.S. grain standards are a problem, the obvious question is -- why hasn't the grain industry changed the standards before now? The reality of the situation is that specific interest groups within the grain industry benefit immensely from the status quo. Grain exporters and the grain trade system at various stages within the U.S. marketing chain benefit by being able to blend low quality grain with higher quality grain using the wide range of grade factor tolerance within the standards. Farmers are discounted at local country elevators for low quality grain based on the theory that an inferior product is worth less in the marketplace. Yet grain traders and exporters are able to blend that same lower quality wheat into higher quality wheat and sell it for the going price of No. 2 U.S. Hard Red Winter wheat, for instance. In the process, both the minority of farmers delivering higher quality grain have been penalized and exploited as have foreign buyers. A document entitled U.S. Grain Standards--An Immediate Problem With Obvious Solutions is being provided to you today. It identifies the nature of the problem and provides an analysis of the magnitude of the levels of defective material that actually existed in U.S. wheat exports in 1984.

Again, there is no mystery as to why the large grain exporting firms and the grain trade oppose changing the grain standards. It is primarily a profit motive. However, isn't it ironical that it was those same interest groups that supported the so-called "market-oriented" 1985 farm bill? They told U.S.

farmers and the U.S. Congress that it was absolutely essential to lower wheat prices by 90 cents or \$1 a bushel in 1986 in order to be competitive in world markets. But when it comes to having "market-oriented" grain standards for wheat as a means to be competitive, those same interest groups want a different set of rules. The Nebraska Wheat Board did not support the low commodity loan rates in the new farm bill nor did the majority of Nebraska farmers, but we have to live with them nevertheless, at least for the time being. I submit to you that lower wheat prices are not near as essential a factor for increasing wheat exports as tighter grain standards. If U.S. grain exporters and the grain trade insist on supporting the "market-oriented" approach for wheat prices, they should also be made to support market-oriented grain standards. If lower wheat prices are "market-oriented", so are tighter grain standards.

In my opening remarks, I referred to the various factors used in determining the numerical grades for U.S. wheat. I suggested that the latitude of allowable defective material and wheat of other classes within the grades are entirely too wide. I want to associate costs in terms of dollars with these factors and show their significance to those importers purchasing U.S. wheat in the 1984 calendar year. In that year, the United States exported 1 billion, 454 million bushels of wheat including all four major classes of wheat and Durum. The class of wheat representing the largest export volume in 1984 was Hard Red Winter, the class of wheat grown in Nebraska and the major class of wheat produced in the United States. Buyers in nearly 50 foreign nations purchased Hard Red Winter wheat in 1984. Those foreign buyers paid an average of \$4.17 per bushel per bushel (the export price) for HRW loaded from U.S. Gulf Ports that year. The average cargo of HRW wheat loaded out contained 5.8 percent of total defects, dockage and wheat of other classes or a volume equivalent of nearly 43 million bushels and an export value of nearly \$179 million. The 5.8 percent defective or nonwheat material consisted of 1.9 percent of other classes and 3.9 percent total defects and dockage. For example, importers purchasing a 1 million bushel shipload of HRW wheat paid nearly \$6,000 for classes of wheat other than HRW that were blended into the cargo. That same importer paid approximately \$160,000 for total defects and dockage on that same million bushel cargo and paid about \$24,000 ocean freight for the dockage, defects and wheat of other classes. When one combines those costs, the total comes to nearly \$200,000 on that one shipload, and bear in mind that the U.S. exported the equivalent of 740 shiploads of Hard Red Winter wheat in 1984 of 1 million bushels each. I suggest that it is no wonder foreign buyers complain about U.S. wheat when they receive it in such a condition. I will grant you that wheat of other classes and defects such as shrunken and broken kernels have some commercial value but such wheat certainly lacks the industrial value and the commercial desirability that a foreign flour miller needs and wants to maintain satisfied customers in the baking and other end-use wheat product industries he serves.

The task at hand is to solve our grain quality and export cleanliness problems and establish the U.S. as the exporting nation that provides the most desirable and the cleanest wheats in the world. S. 1121 is a major step in that direction. By restricting the practice of adding dust or grain-related material

that has been removed from grain except for purposes of conforming to specific export contract terms, you begin to address the problem. The Nebraska Wheat Board suggests that you amend S. 1121 to go well beyond its current impact, however. We urge such an amendment to accomplish the following changes in the current U.S. standards and grade requirements for U.S. wheat:

1. Use of the term "dockage" be discontinued and all material considered to be dockage in a sample be included in the determination of a foreign material and be reported on a .10 percent basis.

2. Current statistical averaging (the CUSUM practice) used to determine whether a cargo meets contract specification be discontinued. A new requirement that each subplot making up a cargo must meet the load order requirements for numerical grade factors and for any other non grade factors such as protein might be specified.

3. FGIS should be required to report protein on a standard moisture basis.

4. It should be made illegal to add unmillable material to wheat anywhere in the U.S. marketing system.

5. Wheat testing under 11 percent moisture should receive a weight premium equal to the percentage of moisture shortfall and there should be no discounts for moisture in wheat testing between 11 percent and 14 percent moisture.

Attached is a sheet showing recommended new grade requirements for U.S. wheat. The recommended numerical grade tolerance levels incorporates the concept that "dockage" as a term is no longer used and material previously known as dockage is included in the allowable levels of foreign material. The recommendation that I have just mentioned was endorsed by the boards of directors of both the National Association of Wheat Growers and U.S. Wheat Associates, Inc., in January of this year.

The Nebraska Wheat Board strongly believes that these major changes in the U.S. Grain standards for wheat will do as much or more than anything else to increase U.S. wheat exports by making U.S. wheat competitive in the international marketplace.

To those who argue that tighter wheat standards will cost the U.S. farmer, I suggest that today's loose standards are really what's costing the farmer by reducing exports and lowering wheat prices. Tighter U.S. grain standards will also help farmers by reducing the amount of freight the farmer pays on that volume of grain that is actually defects, dockage and wheat of other classes. Likewise, foreign buyers will not have to pay the ocean freight on those defect and other factors nearly to the extent that they are today which will clearly make U.S. wheat more price competitive the world over. Furthermore, I suggest that U.S. farmers are quite sophisticated and are well aware that all costs of marketing after their wheat reaches the point of first sale is in fact passed back to them in the form of a lower price. However, U.S. wheat producers are a promotion-minded and market development oriented group. They are increasingly aware that the cleanliness, quality and overall marketability of their product is determined by the grade requirements and tolerance levels established by the U.S. grain standards. Those grade requirements are truly the package in which U.S. wheat is wrapped when presented to the foreign buyers of the world. Tighter grain standards, just like market development expenditures, are an

investment designed to make U.S. wheats competitive. Had tighter U.S. grain standards been established 30 years ago when the overseas market development program was launched, the U.S. could have achieved even greater success in exports, and in fact wouldn't be witnessing such dismal export performance today.

To those who argue that changes in the grain standards should be achieved through the administrative, rulemaking and regulatory process of the Federal Grain Inspection Service, I suggest that we do not have time for such a lengthy approach. Federal legislation is the surest and quickest route toward dealing with problems of cleaning up U.S. wheat exports and improving quality. Once passed into law, a new set of tighter standards will provide the proper incentive to producers regarding what they must deliver to country elevators. Also, tighter standards, enforced and administered properly, will prevent both U.S. farmers and foreign buyers from being exploited by the practice of blending lower quality wheats and other materials into high quality, clean wheats.

Attached to my testimony is material that supports the statements I have just made as well as pie charts showing the results of the grain producer poll regarding grain standards. A complete copy of the SRI poll is being provided as well. Furthermore, various sections of the resource document I have provided you documents recent media coverage, buyer complaints and other relevant data concerning the grain standards issue.

RECOMMENDED NEW GRADE REQUIREMENTS FOR U. S. WHEAT

GRADE	MINIMUM TEST WEIGHT PER BUSHEL		MAXIMUM LIMITS OF---					WHEAT OF OTHER CLASSES (5)	
			DEFECTS						
	HARD RED SPRING WHEAT OR WHITE CLUB WHEAT(1) (POUNDS)	ALL OTHER CLASSES AND SUB CLASSES (POUNDS)	HEAT DAMAGED KERNELS	DAMAGED KERNELS (TOTAL) (2)	FOREIGN MATERIAL (3)	SHRUNKEN & BROKEN KERNELS	DEFECTS (TOTAL) (4)	CONTRASTING CLASSES	WHEAT OF OTHER CLASSES (6)
1	pounds 58.0	pounds 60.0	percent 0.0	percent 1.0	percent 0.4	percent 1.0	percent 1.0	percent 0.5	percent 1.0
2	57.0	58.0	0.1	2.0	0.7	2.5	2.5	1.0	3.0
3	57.0	58.0	0.2	3.0	1.0	4.0	4.0	1.0	3.0
UTILITY GRADE	54.0	54.0	1.0	8.0	3.0	10.0	10.0	8.0	8.0

SAMPLE WHEAT THAT DOES NOT MEET ANY OF THE ABOVE GRADE REQUIREMENTS.
GRADE

U. S. Sample grade:

U. S. Sample grade shall be wheat which:

1. Does not meet the requirements for the grade U. S. No. 1, 2, 3 or Utility Grade; or
2. Contains 8 or more stones, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis*), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), or 2 or more rodent pellets, bird droppings, an equivalent quantity of other animal filth per 1,000 grams of wheat; or
3. Has a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor); or
4. Is heating or otherwise of distinctly low quality.

(1) These requirements also apply when Hard Red Spring or White Club wheat predominate in a sample of Mixed Wheat.

(2) Includes heat-damaged kernels.

(3) Foreign material includes material previously referred to as "dockage."

(4) Defects (total) includes damaged kernels (total), foreign material, and shrunken and broken kernels. The sum of these three factors may not exceed the limit for defects (total).

(5) Unclassed wheat of any grade may contain not more than 10 percent of wheat of other classes.

(6) Includes contrasting classes.

Quality Factors

The study analyzed the following factors used to determine quality:

- o "Heat-damaged kernels" includes kernels that have been discolored or damaged by high heat from respiring grain.
- o "Total damaged kernels" represents the percentage, by weight, of kernels damaged by weather, disease, insects, molds, and moisture, and includes heat damage.
- o "Foreign material" is all matter other than wheat which remains in a sample after removal of dockage and shrunken and broken kernels.
- o "Shrunken and broken kernels" are kernels, kernel pieces, and other matter than pass through a 0.064- by 3/8-inch oblong-hole sieve.
- o "Total defects" are the sum of three factors - damaged kernels, shrunken and broken kernels, and foreign materials.
- o "Wheat of other classes" is any class that is mixed with the predominant class.
- o "Dockage" though not a grading factor, appears on the certificate if it exceeds 0.49 percent. Dockage is rounded down to the nearest half percent. It includes chaff, dust, and items removed from a sample by an initial screening with a dockage tester.
- o "Grade" is determined by analyzing the physical and biological factors present in the sample. Limits for the grading factors are established for each numerical grade. Numerical grades range from No. 1 (highest) to Sample Grade (lowest). Factors that exceed the established limits lower the numerical grade. Higher test weights are acceptable.

[The following study was furnished by Dan McGuire, Nebraska Wheat Board:]

**GRAIN PRODUCERS STUDY FOR NEBRASKA WHEAT BOARD,
NEBRASKA GASOL COMMITTEE—APRIL, 1986—PREPARED BY
ROBERT L. NIELSEN, SRI RESEARCH CENTER, INC.,
LINCOLN, NEBRASKA**

Introduction and Methodology

The Nebraska Wheat Board and the Nebraska Gasohol Committee commissioned SRI Research Center, Inc. of Lincoln, Nebraska to conduct a study of Nebraska grain producers. The purpose was to assess farmer attitudes with regard to the following three issues:

1. Do Nebraska grain producers tend to favor or oppose the imposition of tighter cleanliness standards with regard to wheat and other grains intended for export.
2. Do Nebraska farmers favor or oppose a national farmer referendum with regard to mandatory grain production controls? Do they favor or oppose mandatory grain production controls?
3. Do Nebraska farmers see an advantage in having ethanol plants located in Nebraska? What are farmer's attitudes toward the involvement of the State of Nebraska in

developing ethanol plants? Would farmers favor or oppose grain check-off funds used to assist in the development of ethanol plants?

Methodology

To meet the above objectives, a random sample of 400 grain producers were selected from a list of 51,000 grain farmers with 100 or more acres of farmland. Surveys were completed by telephone by interviewers from SRI Research Center's Lincoln headquarters. Interviews were completed March 28 through April 1. Interviewers made three attempts at phone numbers before trying a new number. Ten percent of all interviews were validated by an SRI validation specialist.

The clients were provided with complete tabular reports under separate cover. This report was developed from those tabular results.

Sample Characteristics

Table 1 shows the sample characteristics of the sample of 400 grain producers contacted. The average age of the farmers was 51.7 years and the average acreage of their farms was 1,088 acres.

TABLE 1.--SAMPLE CHARACTERISTICS

	<u>Frequency</u>	<u>Percent</u>
<u>Age:</u>		
Under age 35	41	10
Age 35-49	102	26
Age 50 and over	257	64
<u>Farm Size:</u>		
100-240 acres	69	17
241-479 acres	104	26
480-999 acres	126	32
1000 or more acres	101	25
<u>Types of Grains Produced:</u>		
Corn	321	80
Soybeans	198	50
Wheat	177	44
Grain Sorghum	148	37
<u>Most Grain Produced:</u>		
Corn	261	65
Grain Sorghum	61	15
Wheat	44	11
Soybeans	7	2
Depends/Not sure	27	7
<u>Primary Operation:</u>		
Cash Grain	240	60
Livestock	105	26
Neither/Not sure	55	14

Table 2 shows the farm production groups and farm organizations in which farmers were members. The largest membership was in farmer owned co-ops (77 percent) followed by Farm Bureau (18 percent) and Farmer's Union (17 percent).

TABLE 2.--FARM ORGANIZATION AND COMMODITY GROUP MEMBERSHIP

Organization or group	Membership Percent (n=400)	
	Yes	No
Farmer owned co-op	77	23
Farm Bureau	18	82
Farmer's Union	17	83
NFO	4	96
American Agriculture Movement	2	98
Grange	2	98
Corn growers	8	92
Wheat growers	5	95
Soybean growers	4	96
Sorghum growers	2	98

Summary Findings

This section summarizes the complete findings. The findings are summarized into the three issues that represented the primary objectives of the study. On the pages following this summary are graphs and tables representing the complete and detailed findings from the study.

Tighter Grain Standards

Nebraska farmers think that wheat and other grain exported by the United States is significantly dirtier than similar grains exported by other countries in the world. Over half (51 percent) of the total farmers felt that U.S. grain was dirtier than grains exported by other countries. Less than 1 in 10 (8 percent) felt the grain was cleaner, and only 7 percent felt it was about as clean as other countries. A third of the farmers were not sure as to how clean the grain was.

More than 8 out of 10 (84 percent) farmers would favor U.S. Congress imposing tighter cleanliness standards on U.S. grains intended for export. When looking at only those farmers with an opinion, more than 9 out of 10 (92 percent) favored tighter grain standards on grain cleanliness.

Mandatory Grain Production Control

More than half (51 percent) of Nebraska farmers would favor a national farmer referendum on mandatory grain production controls. Only slightly less than one-third (31 percent) would oppose such a referendum while 18 percent were undecided. Of those farmers with an opinion, nearly two-thirds (63 percent) favored the referendum. Farmers asked if they would vote for or against mandatory production control if such a referendum were held. A majority of those farmers with an opinion would vote in favor of mandatory production controls (55 percent). Forty-five percent of the farmers with an opinion would be against mandatory

production controls. All farmers responded 46 percent for mandatory production controls, 37 against, and 18 percent undecided. If higher loan rates on grain were tied to the mandatory production controls, an additional 19 percent of all farmers would favor production controls. Of those who were opposed or unsure about mandatory grain production controls, 35 percent said they would vote yes if those mandatory controls were accompanied with higher loan rates on grain. Forty-four percent said that it still wouldn't matter to them, another 10 percent said it would depend on the rates and 11 percent were not sure. In total, mandatory production controls tied to higher loan rates would be favored by 65 percent of all farmers while 35 percent would be either opposed or undecided. Sixty-nine percent of grain producers would favor such a plan while only 59 percent of the livestock producers would.

Expansion of the Ethanol Industry

Nearly 9 out of 10 farmers (86 percent) favor the State of Nebraska being involved in assisting in the expansion of the ethanol industry. Only 7 percent opposed the State of Nebraska's assistance while another 7 percent were undecided. Farmers also clearly see an advantage for ethanol plants to be in Nebraska. Eighty-one percent of the farmers said that ethanol plants in Nebraska did provide an advantage to Nebraska farmers, 14 percent said it would make no difference, 2 percent saw it as a disadvantage and 4 percent were unsure. As a means for expanding the development of ethanol plants in Nebraska, 59 percent of all farmers would favor a grain check-off designated for that purpose. Twenty-six percent of the farmers would oppose it while 15 percent were undecided. Of all farmers who had an opinion, 69 percent favored the grain check-off to develop ethanol plants while only 31 percent opposed it.

STATEMENT OF RICHARD KONZAK, CHAIRMAN, NORTH DAKOTA
FARM BUREAU COMMODITY COMMITTEE, DEVILS LAKE, N. DAK.

Mr. Chairman, members of the Committee, I appreciate this opportunity to provide comments on SB 1121.

North Dakota is a leading state in the exportation of grains. I share with Senator Andrews the concern that an improvement in the quality of grains being shipped for export will encourage and promote the quantity of our grains moving into the export market.

I am a small grains farmer, a grower of certified and registered seeds, a Past President of the North Dakota Crop Improvement Association, and presently a director of the North Dakota Farm Bureau where I have been serving as Chairman of the Commodity Committee for six years. In each of these positions, I have been aware of producer concerns about the quality of grains produced in North Dakota and the quality of that grain when it is exported.

The marketing conditions in the Upper Great Plains region is unique. Farmers in our region have been selling their product for years under a determined dockage system established under the Federal Grain Standards Act. When we farmers haul our grain to market a dockage is immediately determined on each load. That weight is removed from the grain being sold. We farmers are paid only for the clean grain that we deliver. The dockage has become the property of the grain buyer without any cost to them whatsoever. Our region has a history of utilizing dockage in order to promote and provide a cleaner, premium product.

Our North Dakota producers have been geared toward the production of a clean, high quality product. The latest research data from the 1985 Regional Wheat Quality Report provides the following information:

- o The average weight of North Dakota wheat was 59.2 pounds;
- o Federal Grain Standards for U.S. No. 1 are 58 pounds;
- o Our state average for foreign material in wheat was .2%;
- o Federal Grain Standards allow .5%;
- o The North Dakota average for total defects was 1.7% while the official standards are 3%;
- o Our state average for contrasting classes was zero as compared to Federal Standards which allow 3%; and
- o Our state average for dockage for the years 1984 and 1985 was .9%.

Recently, I visited with Mr. Sam Kuhl, Manager of the North Dakota Mill and Elevator at Grand Forks, North Dakota. He provided me with the following written statement:

"During 1985, I purchased 10 million bushels of No. 1 Hard Amber Durum (HAD) and No. 1 and No. 2 Hard Spring Wheat (HRS). The average dockage on these 10 million bushels, which I purchased from the farm and country elevators, was below 1/2 of 1%. The total clean out of non-millable material, including dockage was between 2.5 and 3%. Indeed for the past two years, North Dakota wheat has averaged grain specifications greater than those demanded by the Federal Grain Standards of U.S. No. 1 wheat."

In my contacts with the various commodity groups, general farm organizations and check-off commissions, I am confronted with producer bewilderment and frustrations with the industry-wide system that is unable and unwilling to keep pace with the individual farmer's ability to produce and offer in the market place, a product superior to that designated by the established standards of the Federal Grain Standards. Within my own organization, the North Dakota Farm Bureau, in a survey taken last spring of our membership, 91% of our respondents expressed the belief that Federal Grain Standards should be tightened. This action was followed by a resolution in our House of Delegates calling for legislation to upgrade and enforce quality standards of grain leaving our ports.

The North Dakota producer is a realist. We realize that despite our quality product on the farm, our highly integrated transportation system, our more than adequate handling and storage system, and the most advanced technological equipment at the port sites, we have lost our competitive edge to countries such as Canada, Australia and Argentina who are intensely concerned with marketing a quality product. Canada, especially has set the standard for excellence and the market place has rewarded it with an increasing export share.

In June of 1984, I had the privilege of attending a Great Plains symposium on World Agricultural Trade sponsored by the North Dakota State University and our Northern Crops Institute. We listened to four speakers of national and international reputation. Each discussed the many barriers facing the United States in the world trade market, including the high value of the dollar, credit terms, our high price support system, and internal constraints to trade. I was particularly interested in the remarks of Mr. M.D. (Pete) McVay, President, Cargill, Inc., Minneapolis, Minnesota, who heads one of our major export firms. He stated that our U.S. farm policy needed to accomplish a number of things. First, the maintenance of a reasonable food reserve to protect us from natural disasters; second, the maintenance of our efficient agricultural plant by the provision of a safety net for farmers; and third, competitiveness. I would like to quote from his remarks on this subject:

"We must be competitive at all levels--producer, merchant, government--for export markets. Policies must encourage, permit and in fact require that our producers be fully competitive with foreign competitors. We must be willing to compete with the Canadian, the Australian and the Argentinian bushel for bushel, and there's no reason we should not be able to do so."

North Dakota Farm Bureau has supported a market oriented farm program. We appreciate the fact that we are now in a position to offer our grain at market cleaning prices while being supported by a safety net offered by our government. We are now waiting for the merchants of our product to take the next step. We must be willing, as Mr. McVay of Cargill suggested to compete on the same level--bushel for bushel. Senators, I would like to emphasize clean bushel for clean bushel.

I am here primarily to represent our North Dakota Farm Bureau membership. We support the intent of S1121 in its attempt to put teeth into the Federal Grain Standards. However, we feel it will be necessary for portions of line 2 and 3 on page 2 to be deleted. The words, except to conform to export contract terms, should be stricken from the bill. How many times have we heard, in answer to complaints about the quality of our grain received in the export market, "Well, they got exactly what they contracted for." The bill with its present wording would effectively block the necessity of changes in the Federal Grain Grading System. Dirty grain would continue to be offered in the market place, indeed, it would have contract sanctity. Our membership feels that the quality of grain that we produce should be enhanced as it moves through the marketing channels. SB 1121, with the deletion of the exception of export contract terms, would be one step in this direction. The bill, with the deletions that we have noted, in its simplicity would meet the requests of the President of Cargill that our policies must encourage, and in fact, require, that our products be fully competitive with foreign competitors. If you wish, I can provide you with copies of the supporting data which I have used in this presentation.

Thank you for the opportunity to express the views of the North Dakota Farm Bureau.

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STATEMENT OF WILLIAM R. ALLEN, JR.
EXECUTIVE VICE PRESIDENT AND GENERAL MANAGER,
UNION EQUITY CO-OPERATIVE EXCHANGE, REPRESENTING
THE NATIONAL GRAIN TRADE COUNCIL

Mr. Chairman and Members of the Subcommittee:

My name is William R. Allen, Jr. I am executive vice president and general manager of Union Equity Co-Operative Exchange. I appear before you today representing the National Grain Trade Council. I am a member of the Council's Board of Directors and Executive Committee.

The Council is national trade association whose policy-making members include grain exchanges, boards of trade, and national grain marketing organizations. The Council has a number of Associate members who represent a broad spectrum of the grain marketing industry.

Union Equity is a regional cooperative owned by 469 local member cooperatives representing over 250,000 farm families in Oklahoma, Kansas, Colorado, Texas, Nebraska, Missouri, South Dakota, Arizona, Arkansas, and Iowa.

We appreciate this opportunity to share with you our views on S. 1121, a bill to improve export grain quality and, in a broader sense, to discuss the many implications of the grain quality issue.

Mr. Chairman, the underlying reason we are meeting here today is that American agriculture is suffering from severe financial stress, primarily as a result of dramatic declines in agricultural exports.

We are all familiar with the gloomy statistics and reasons for the decline in exports. Since 1981, when the U.S. exported 162.3 million metric tons (mmt) of agricultural products valued at \$43.8 billion, the level of our exports has dropped dramatically. The most recent USDA projections for fiscal 1986 estimate agricultural exports of 122.5 mmt, valued at \$28 billion. These 1986 figures have exports of wheat down 42 percent, corn down 19 percent, and soybeans up 16 percent compared to 1985. And 1985 was hardly a banner year.

There are many complicated reasons for this decline: inflexible U.S. farm programs, the lingering effects of a world wide recession, the strong U.S. dollar, and the reduced ability of our customers to afford our exports. We will see improvements in some of these areas. The dollar, against some currencies, has been declining. The Congress passed a farm bill last year which, while certainly not perfect, does put us back on the road to restoring our competitiveness.

For whatever reasons, the decline in U.S. agricultural exports has been an unmitigated disaster for all involved in agriculture -- from the nation's farmers, to the firms who handle and process our abundant production, as well as the myriad of U.S. industries dependent in whole, or in part, on

a healthy agricultural economy. For this reason, we firmly believe the best single step our government could take to deal with the sagging farm economy would be to launch an aggressive program to expand U.S. exports.

In the search for reasons for, and solutions to, our drop in exports, one comment we hear is that our quality is not what it should be. Fueled by headlines such as "Rotten Grain Shipments Threaten American Farmers, Export Market," "U.S. Exports Riddled With Decay," and "Why The World Doesn't Want Our Grain," some individuals and organizations have fed the farm community with half-truths and innuendos on this important issue.

As concern grew in the farm community and then in Congress, we saw legislative attempts last year to change the grain standards. These attempts resulted in a section being added to the 1985 farm bill calling for a study of export grain quality issues. That legislative interest also led the grain trade, through the North American Export Grain Association (NAEGA), to initiate a series of grain quality workshops. The intent of the workshops was to provide a forum for farm groups, academics, grain associations, and the Office of Technology Assessment to sit down together and try to work out any differences over changes in the grade standards.

The Council is pleased to be part of this workshop process. Compromise, Mr. Chairman often is not a pretty process; usually there are at least two sides to every issue, with each side represented by advocates with deep-seated views. I must tell you the Council views with deep concern many of the changes being formulated by the workshop group. Many of us feel the changes represent an overreaction to a problem that is more perceived than real. And there are people on the other side of the issue who, I am sure, do not feel the changes go far enough.

The Council is committed to this workshop process. We believe the goal of the workshops should be to study the facts as objectively and fairly as possible. Not everyone will agree with all of the recommendations the group will issue, but we do feel it is the best means of addressing a very difficult and complex issue. Actually, we would have preferred to see today's hearing scheduled later so the Subcommittee would have the benefit of hearing the workshop group's recommendations. Those recommendations are expected early this summer.

The purpose of this testimony today is not to present you with specific recommendations for change. That is the purpose of the workshops. Rather, we propose to discuss, in a broader sense, some of the recurring practices or standards that seem to have become targets for much of the discussion on grain quality. These items include adding dust and grain-related material back to grain, wheat dockage, Cu-Sum loading plan, and blending.

Dockage in wheat is currently certificated by rounding down to the nearest one-half percent. For example, wheat containing dockage of 0.0 to 0.49 percent is certificated as 0.0 percent dockage; wheat containing dockage of 0.5 to 0.99 is certificated as 0.5 percent dockage. Advocates of change believe that recording dockage to the nearest one-tenth would provide a more accurate assessment of the dockage in a shipment of wheat and would be more fair to both a farmer selling the grain and the ultimate buyer. There are several drawbacks to such a proposal. Current equipment to measure dockage has a variability of .15 percent; the equipment is expensive and, therefore, not easily justified by most country elevators. And there is a time factor during the busy harvest season. As a result, if the recording of dockage were in tenths, we believe most country elevators would automatically discount incoming grain to protect themselves from the dockage amount that may be determined at the next step in the marketing chain. Such is not the case today.

As we discuss changes in recording dockage, everyone should understand that recording in tenths will not necessarily mean cleaner grain will be exported from the United States. Export elevators generally ship out essentially what is received, but there will be no tolerance with measurement in tenths. We doubt such a change will lead to the cleaning of wheat. Some studies estimate that removing dockage at port locations would cost 13.7 cents per bushel, which would ultimately be borne by the producer.

The Cu-Sum (Cumulative Sum) loading plan has been criticized as allowing exporters to ship grain exceeding grade tolerances. The Cu-Sum plan is an online acceptance sampling plan that accumulates results exceeding established limits. Cu-Sum encourages uniform loading through tolerances for each subplot. An entire shipload may consist of as many as 50 sublots or more. There is an inherent variability in sampling and Cu-Sum establishes parameters for the tolerances, providing for accepting or rejecting portions as they are loaded. A loading plan of some type is absolutely necessary as a means to fairly arrive at an overall grade for a ship based on samples of its sublots.

Cu-Sum is a recognized, statistically sound sampling plan developed by FGIS and the grain industry. Similar quality control plans are used throughout U.S. business and industry.

Perhaps the most maligned marketing practice is blending. What is blending and why is it done? The simple reason for it is that the United States does not harvest a uniform quality crop; it comes in all shapes and sizes. The U.S.

* Fridirici, R., Kiser, H.L., Schnake, L.D., and Wingfield, J. "A View on the Economics of Removing Dockage from Wheat." Kansas State University. Manhattan, KS July 1984.

grain marketing system raises the overall quality of the crop harvested each year, fitting that grain into a rigid grading system, with the largest portion of the crop made marketable by blending.

The oft-heard complaint from a farmer is that he delivers number 1 grain to the elevator and what does the elevator do that causes this grain to become number 3?

There are many factors at work in this situation. In the first instance, not all farmers deliver number 1 quality. Often, because of weather, weeds, storage practices, or harvesting conditions a farmer-customer may deliver a crop of low quality grain. Blending allows an elevator to provide a market for most of the grain produced. Blending is an integral and important part of the marketing process.

I should say at this point, when I refer to blending, I am referring to different lots of grain. We have all heard the horror stories of tree branches or old tires being found in grain, or heard of someone who saw gravel being added to grain. Such stories are gross exaggerations. That is adulteration, not blending, and we do not condone adulteration.

The last quality issue I would like to mention is the one addressed by your bill, S. 1121. The National Grain Trade Council does not oppose this bill, but would oppose any expansion of the bill. This measure as proposed would essentially prohibit the adding back of grain dust or grain-related material once removed by an elevator, except to conform to contract terms.

Dust and grain-related material are natural components of grain. There are occasions, particularly when handling soybeans, when grain is "overcleaned" for the grade specified in the contract terms. In such cases, grain related material may be added back to reflect its quality, price, and economic value as provided in the contract terms.

As you can see, any extension that would completely prohibit adding back grain-related material would likely result in a price discount to producers. Such a prohibition could actually result in less clean grain as elevators would opt not to remove this material initially.

As to the overall quality issue, we will be the first to admit that no system is perfect and that perhaps some fine tuning is warranted. But, let us not overreact trying to solve perceived quality problems. Let us be sure we are talking about a quality problem, not a price problem.

The question we should ask is, "Is the buyer receiving what he pays for?" We believe the answer is clearly yes. In 1984, the Federal Grain Inspection Service (FGIS) issued studies reviewing the quality of U.S. exports of wheat, corn, and soybeans. The results found that, with rare exception,

all the grain shipped was within federal grade specifications and met contract conditions.

Quality has an economic value and the foreign buyer must be prepared to pay a premium price for a premium quality product, whether provided by the U.S. or any other supplier. As international businessmen, we cannot sell number 1 wheat at number 2 prices and remain in business very long. We also must carefully explain to farmers that tighter and more restrictive grain standards also carry a price tag. It is price they will ultimately bear.

A number of groups have called for tighter standards, saying their farmer members are willing to pay the price associated with tighter standards. But, I can assure you that many farmers will be concerned about a discount of several cents per bushel when they deliver their grain from the farm to their country elevator.

A primary reason for our declining agricultural exports is past farm policies which priced our commodities out of world markets. Foreign customers buy the lowest cost product, and the U.S. price of Hard Red Winter (HRW) wheat, for example, has been consistently \$20 to \$30 per metric ton (54 to 81 cents per bushel) higher than our foreign competitors basis the Gulf.

As we emphasized earlier, what agriculture needs is not a divisive argument over grain quality, but an aggressive export program to restore vigor and health to our deeply troubled farm economy. The Administration's Export Enhancement Program simply is not doing the job. We need more than a narrowly targeted program. We need a program that doesn't discriminate against some of our largest buyers of corn and wheat. As a case in point, the Soviet Union in recent years purchased approximately 40 percent of U.S. HRW exports. This year, less than 2 percent of U.S. HRW exports will go to this nation. In bushel terms, that business has dropped from 250 million bushels to 5.6 million, a 98 percent decline. We need a program enabling the U.S. producer to recover his lost world markets eroded in recent years.

These are very trying times for all of us involved in agriculture. We all need to pull together to achieve a healthier agricultural economy.

**STATEMENT OF DONALD MENNEL, CHAIRMAN, MENNEL MILLING COMPANY
FOSTORIA, OH, REPRESENTING MILLERS' NATIONAL FEDERATION**

Mr. Chairman, members of the Rural Development Oversight and Investigations Subcommittee:

I appreciate the opportunity to discuss with you the very important topic of wheat quality. I am Don Mennel, Chairman of the Mennel Milling Company, Fostoria, Ohio. The views I express are those of the members of the Millers' National Federation. The Federation is the national trade association of the wheat and rye flour milling industry. The 44 member companies of the Federation operate over 120 mills in 32 States which accounts for 85 percent of the U.S. flour milling capacity.

Senate bill 1121 purports not to affect domestic millers since its aim is to encourage foreign agricultural trade by improving the quality of grain shipped from U.S. export elevators. However, the subject of wheat sanitation and quality is one of vital interest and importance to domestic flour millers. The U.S. flour milling industry is the single largest customer for U.S. wheat, paying full price for it. Therefore, we ask that any efforts to maintain and improve wheat quality recognize the concerns and needs of the domestic milling industry. It is our belief that the proposed improvements in export practices with which we philosophically agree, if not coupled with similar improvements in domestic practices, will simply shift the detrimental material to the domestic millers with the additional cost of removal thereby shifted to the U.S. consumer.

Other grain quality amendments debated during the formation of the Food Security Act of 1985 were also addressed to meet the needs of foreign customers. The Act mandated a study by the Office of Technology Assessment of U.S. grain export quality standards and grain handling practices. There is only one U.S. wheat standard serving all customers, domestic and foreign. The frustrations experienced by the domestic milling industry. Therefore, a distinction by customers for wheat quality issues is certainly inappropriate.

Like many foreign buyers, the domestic milling industry is dissatisfied with the levels of dockage and insect infestation permitted by the standards. The wheat standard needs upgrading to describe better the physical and biological condition of wheat so as to determine its usefulness to the buyer. Efforts to protect and satisfy the customer should not be limited to foreign buyers who, by the way, also primarily purchase wheat for flour milling, in direct competition to U.S. millers.

During the past six years the Millers' National Federation has actively sought necessary improvements in the U.S. wheat standard. Our efforts have been aimed at the USDA's Federal Grain Inspection Service. This agency has been entrusted by Congress to review periodically existing standards to determine their effectiveness and responsiveness to the needs of the wheat industry. The milling industry's current two primary areas of concern with the wheat standard are the reporting of dockage and insect infestation. We are dissatisfied with the manner and speed with which the Federal Grain Inspection Service has handled these issues.

In the 1978 report to Congress, the Federal Grain Inspection Service reported that: "Insect infestation in grains is a major issue. It is a source of foreign complaints about the quality of U.S. grains. Domestic food processors face the possibility that products made from grain containing insects can be seized even though the grain was assigned a numerical grade under the existing standards. Correction of the standards to better reflect insect infestation is of high priority."

Yet In March 1983 the FGIS proposed improvements in the wheat standard failed to mention the problems caused by insect infestation. FGIS has denied numerous requests by the Federation to incorporate insect infestation issues into the wheat standard rulemaking. In 1985, when FGIS did study its procedures for inspecting and grading infestation, it identified 33 separate problems and inconsistencies with its procedures and enforcement.

Now FGIS is about to solicit information again through the Federal Register, on problems with the inadequacy of the wheat standards when grading and reporting insect infestation. While we welcome this action, we question why it has taken FGIS eight years to begin to address a problem it indicated was a "high priority". In light of the government's and the public's concerns with the safety of pesticides (such as ethylene dibromide (EDB)) used to prevent and control insects, FGIS's failure to act is particularly derelict. During fiscal year 1985, insect infestation was the number one cause of foreign complaints on U.S. wheat.

Our other primary concern with the wheat standard is the reporting of dockage in wheat. The current method is: inaccurate, biased towards sellers, and encourages blending of dirty wheat with clean wheat. Changes in the method of certifying and reporting dockage were proposed as part of the 1983 efforts to revise the wheat standard. A majority of commentators supported the change and "FGIS determined that current dockage procedures need to be improved in order to maintain and increase exports of U.S. wheat. Yet when final revision to the wheat standard were published, no change in the dockage certification was made despite the support of producer groups such as National Association of Wheat Growers, U.S. Wheat Associates, and American Farm Bureau Federation as well as foreign and domestic customers. The Federation likewise supports a tightening in the dockage reporting requirements.

As recently as January of this year, FGIS held a public meeting on the wheat dockage issue. Of the 24 individuals testifying, 22 called for a change in the dockage certification procedure. Now FGIS is on the verge of reopening a rulemaking on wheat dockage. A probable outcome will be a change in how dockage is reported. We certainly hope so. The change will go into effect in 1987, years later than the earlier rulemaking supported.

The domestic flour milling industry has a proud tradition of producing wholesome, high quality products to meet the needs of our customers. We are fortunate that the American wheat farmers provide a wide variety of wheats for milling. The U.S. wheat standards need modification to reward those farmers and handlers who properly preserve the quality and wholesomeness of wheat.

The current standard provides an incentive to blend dirty and clean wheats to produce a mix which grades as clean wheat. When wheat is graded, evidence of past or present insect infestation is for the most part ignored. Therefore, there is little incentive

to keep extraneous matter and insects out of the wheat. The current, outdated wheat standards disguise true wheat quality and are the underlying cause of customer dissatisfaction--domestic and foreign. Although the Federal Grain Inspection Service is charged with evaluating the effectiveness of the wheat standards and keeping them current, it has been our experience that it spends too much of its time defining the adequacy of the existing standards while denying the legitimacy of customer complaints.

Thank you again, Mr. Chairman, for the opportunity to share the views of the domestic milling industry with you.

**STATEMENT OF CHARLES L. FRAZIER, DIRECTOR, WASHINGTON OFFICE,
NATIONAL FARMERS ORGANIZATION**

This brief statement is filed on behalf of the officers and membership of the National Farmers Organization. First, I wish to compliment you on the introduction of S. 1121 that would prohibit the addition of foreign material to grain being shipped from export elevators. We believe the conference on the Food Security Act of 1985 erred in striking similar provisions from the legislation.

We first became seriously involved with questions relating to grain quality, the standards and the Inspection Service when the 1976 legislation was moving through the Congress. Our members are convinced that stronger regulations governing the inspection of the principal grains entering the export market is beneficial in expansion of those markets. As our exports have declined in recent years and complaints are again coming in from foreign buyers, we noted the extensive discussions of how to improve the quality of grain offered in the overseas trade. We do not agree with those who contend that the quality issues have been exaggerated. It is urgent that we at least offer potential buyers a higher quality product.

The president of our Kansas organization recently had an opportunity to display farm quality wheat to a delegation of Japanese businessmen. Some members of that delegation understood the grain trade and were involved in milling. They were excited about the possibility of purchasing wheat of the quality coming directly from the farm.

We acknowledge the long standing argument as to whether foreign buyers would literally pay for good quality grain. Trade people recite the argument that tenders are made with specifications attached and the buyers could call for higher quality grain if they were willing to pay for it. We are not certain that this line of argument is sound. It is useless for the buyer to call and pay for quality that cannot be guaranteed by our standards and inspection services.

In an effort to attain some resolution of these long standing arguments as to whether high quality American grain would attract a price properly compensatory for the effect necessary to present such a product in the market, we would support legislation moving along the following lines:

Prohibit the reintroduction of dockage or foreign material in grain destined for export.

Prevent the blending of grain with variations in moisture content of more than 4 percent.

Report dockage to the nearest 0.1 percent rather than round to the nearest 0.5 percent in the case of wheat.

Develop standards for an "export grade" in wheat, corn and soybeans that would delineate top quality with respect to grade factors, moisture, insect infestation, molds and adulteration.

We will never know whether some of the markets, both domestic and foreign, are willing to pay for uniformly highly quality grain until we offer it and make an effort to develop the market.

One other view is worthy of consideration. It is not necessary to wait for unity in the trade for some innovative action on this issue. If some producers bring in off-quality grain they are penalized in price. If some grain companies want to deal in a junk product, so be it. There is sufficient potential market improvement, however, to justify an effort to deliver good quality grain through trade channels. Those producers, country house operators and exporters who are willing to make the necessary effort should have the protection of a better grading system and an opportunity to obtain higher prices.

In closing, let me thank you for this opportunity to express our views. We would be pleased to work with your Committee and the Department, along with other producer organizations, in the development of more definitive standards for high quality grain.

**STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION BEFORE THE
SENATE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY**

The American Farm Bureau Federation (AFBF), representing over 3 million member families in 49 States and Puerto Rico, is vitally interested in efforts to upgrade the quality of grain marketed by producers and exporters.

Voting delegates at AFBF's Annual Meeting adopted the following policy pertaining to grain standards and pricing:

We support strengthening and enforcing Federal standards that will reflect the quality of grain sold in world trade. We propose that USDA...conduct a comprehensive study to identify the changes in grading procedures and standards needed to ensure that class and grade will accurately indicate the appropriate end use for each lot of grain. ...We strongly support development of new, more realistic grain standards to improve the present U.S. Grain Standards Act. Revised grain standards should indicate clearly and give assurance that we will improve the present U.S. Grain Standards Act. Revised grain standards should indicate clearly and give assurance that we will provide clean, identity preserved grains for our customers at home and abroad....The objective of improving grain standards must be to enhance sales and improve returns to producers. New standards should be developed soon and should be strictly enforced. We believe the Farm Bureau, USDA and the grain trade should work cooperatively to improve grain standards which accurately reflect the importance of test weight, protein content, insect infestation levels, moisture, dry matter basis and foreign material in determining quality,

grading and pricing factors for soybeans, wheat and feed grains....The practice of adding foreign material, other grains, screenings...to a shipment of wheat (or other grains) to meet a certain grade should be prohibited.

Issues related to grain quality have been of concern to producers for many years. However, only in the last year or two has it been possible to establish meaningful dialogue among the various groups within the grain industry. The current cooperative efforts have been prompted by a awareness that at least a part of the export market the United States has lost in recent years is due to our failure to provide a commodity as good or better than that offered by competing export countries.

In September 1985, AFBF hosted a national meeting of producers, including all of the major grain commodity organizations, grain elevator operators, processors and millers, exporters, importers, USDA and State university grain marketing specialists to discuss issues related to grain standards marketing practices and ways in which the quality of both domestic and export grain might be improved. We also explored the economic feasibility of making changes - both in terms of the cost of changes and the economic rewards. Although few definitive answers were forthcoming from the three-day session, the participants arrived at two conclusions:

- (1) that many of the problems delineated were complex in nature, requiring comprehensive review and study before satisfactory solutions can be developed; and,
- (2) that those in attendance pledged to resolve their differences and work together for changes that will upgrade the quality of grain.

One of the results of the conference was the development of a series of two day grain quality workshops, which began in January. Four of them have now been held. The original objective of this Ad Hoc groups was to complete our efforts by the end of May. However, the complex and perplexing nature of the issues involved cannot be satisfactorily resolved without additional time and efforts which will delay completion until June.

As a result, the American Farm Bureau cannot give full support to S. 1121 at this time, although we are sympathetic with the objectives of the legislation. Many questions remain unanswered, however. For example, would an export elevator that cleans a bin of corn grading U.S. #3 because he needs the grain to fill an order for U.S. #2 corn, be in violation of the intent of S. 1121 if he added back part of the screenings? What are the implications for pricing grain at the local country elevator as a result of this legislation? Would it be a more reasonable approach to reduce the tolerance levels for foreign material?

Farm Bureau expects to have appropriate answers to these questions, any many others, which will provide reasonable and effective solutions in the next two or three months. We will look forward to sharing them with you at that time.

STATEMENT OF CECIL WATSON, BOARD OF DIRECTORS,
U.S. WHEAT ASSOCIATES

My name is Cecil Watson from Cavalier, North Dakota and I am here today to present a statement on behalf of U.S. Wheat Associates, a market development organization supported by wheat producers in fourteen states. I am Chairman of the North Dakota State Wheat Commission, a member of the U.S. Wheat Associates' Board of Directors, a farmer and a wheat producer.

U.S. Wheat has been in the forefront of efforts to seek improvement in export quality of U.S. wheat. We commend Senator Andrews for addressing this issue in S. 1121. The importance of exports to us as farmers and to this nation has been well documented. Delivery of a quality product is important not only to the parties involved in the sale, but to the reputation of producers and the entire U.S. wheat export industry.

Prompted by complaints from importing nations about the cleanliness and uniformity of wheat received from the United States, and by greatly increased competition from other wheat exporters, U.S. Wheat Associates has sought industry-wide support for changes in the U.S. wheat standards and regulations. These changes, in the opinion of the Board of Directors, would:

1. Provide a more accurate description of non-wheat material in language terms that is easy to understand by buyers and sellers. We also support expression of protein at a fixed moisture basis to achieve the same result.
2. Provide more uniform delivery of wheat through regulations which assure uniform loading of wheat within the large holds of oceangoing vessels.
3. Provide economic incentive to clean wheat and keep it clean in every step of the marketing process. Producers can do a better job, but there must be disincentives for others in industry to do just the opposite.

We believe in the rulemaking process established by the Federal Grain Inspection Service (FGIS) Act. In meetings with producers organizations and the grain trade over the past year, U.S. Wheat has sought consensus from industry on changes which would improve U.S. export wheat quality. Progress has been made. The industry-wide committee decided to recommend to FGIS that a change be made to express dockage in tenths of a percent and to express protein on a fixed moisture basis. Both changes meet our criteria of giving buyers a more accurate measure of these two important quality factors in U.S. wheat shipments.

While encouraged by progress to date, U.S. Wheat has pushed for other changes which have not been accepted by industry. As an example, we favor measuring foreign material and dockage separately, but then to express the total as a grade determining factor or as a deduction

from gross weight. This change would reward producers and the grain trade who, by cleaning, could improve grade and it would provide incentive for keeping wheat clean as it moves through market channels.

U.S. Wheat feels that changes should be made in the minimum and maximum tolerances permitted in sublots of a cargo to help eliminate the nonuniformity within wheat shipments. Current U.S. practices allow too much variation in grade factors and in protein between sublots of a cargo. The consequence of this is that individual mills receiving parts of a cargo may receive wheat which is not as clean, and with higher or lower protein than contract specifications.

While it has been our position that industry itself should take the lead in recommending changes necessary to improve export wheat quality, we have not ruled out support of legislation such as S. 1121, should that effort fall short of what is needed. Export wheat quality is a complex issue. Any recommendation for change must be considered from the standpoint of economic impact on producers and other segments of the trade. There are economic benefits as well to be gained by exporting cleaner wheat. We support any initiative which will help the U.S. wheat industry achieve that goal.

STATEMENT OF THE AMERICAN SOYBEAN ASSOCIATION

Subcommittee on
Rural Development, Oversight, and Investigations
Senate Committee on
Agriculture, Nutrition, and Forestry
April 24, 1986

The American Soybean Association, an organization of and for U.S. soybean farmers in 29 states, commends Senator Mark Andrews and other Senators for holding today's hearing on the quality of U.S. agricultural commodities. The hearing is both timely and important.

ASA has become increasingly concerned about complaints submitted by our overseas customers concerning the quality of U.S. soybeans. The complaints are too widespread to suppose there is not a real problem; there is. ASA is working independently and with other groups to determine whether changes are needed in U.S. inspection standards and procedures, and what exporters, domestic handlers, farmers and buyers each can do to insure that U.S. soybeans are of consistently high quality.

Many complaints about U.S. soybean quality are related to the fact that, during both the 1984 and 1985 harvest seasons, there were heavy rains in many parts of the southern United States. The resulting high moisture content of and weather damage to many U.S. soybeans is likely a factor in many problems that have since arisen. In a sense, this is a short-term problem. We must be careful, however, that short-term problems do not cause changes in long-term buying patterns: There are, after all, South American nations ready and willing to take away even our longest-standing markets if they can.

The damage content of soybean shipments is not by any means the only reason for buyers' persistent complaints. Based on contacts through our 11 foreign offices with the overseas processing industry, U.S. exporters and foreign users of soybeans and soybean products, it appears that at least the following areas of concern merit attention:

- o Some buyers complain that the quality of U.S. soybean shipments on arrival at foreign ports is at variance with the quality certified by the Federal Grain Inspection Service at U.S. ports.

For example, a major Portuguese buyer claims to have sampled shipments and found levels of foreign matter (FM) and damaged kernels (DKT) that were not only significantly higher than those certified by FGIS, but substantially above the maximum allowable levels for FM and TDK -- 2.0 percent and 3.0 percent respectively. The buyer makes such claims about a relatively large number of shipments received during both the current marketing year and the previous year.

- o Other buyers maintain that the U.S. inspection standards for soybeans require fundamental change. They argue that, as an oilseed crop, soybeans should have very different inspection standards than grain crops like wheat or corn. These buyers say the determinants of soybean quality are protein and oil content, since these are the primary products into which whole soybeans are processed. Inspection standards should therefore, they reason, refer to protein and oil. Whether current technology would allow such a system before the soybeans are exported and processed is, however, problematic at best.
- o There exists a belief among both buyers and farmers that U.S. exporters endeavor to ship soybeans with the maximum amount of both FM and TDK in order to increase profit margins. Such practices, while not illegal, are surely not in the long-term best interest of either farmers or U.S. exporters themselves, since dissatisfied customers can be expected to take their business elsewhere, given enough time and sufficient reason.
- o Exporters should have responsibilities for insuring high quality, but farmers have an equal interest in delivering a high-quality product to begin with, and continued efforts by ASA and others are necessary in this regard. In addition, foreign buyers also bear some responsibility: If the customer demands quality and insists on it, he will get it. Taiwanese buyers now insist on a contract with higher than normal quality specifications.
- o Everyone involved must realize that, in the short term, a change in quality standards which reduces

an exporter's profit margin will either be passed on to the buyer or (in the current buyer's market) passed back to the farmer as a lower price. In the longer term, changes in quality standards could, to the extent they increase demand for U.S. commodities, improve farmers' prices.

ASA believes there are a variety of factors that determine the competitiveness of U.S. soybeans. Relative price is one factor, and includes not only the dollar-denominated price in the U.S. but also the strength of the dollar against other currencies.

Price is not, however, foreign buyers' only consideration. They also want assurance of a constant, dependable supply -- and they want assurance of quality. Without this, our customers will be tempted to turn elsewhere for their soybeans no matter how competitive our prices are. It therefore behooves farmers, exporters, government agencies and others to work together to maximize the quality of U.S. soybeans.

ASA especially commends Senator Andrews and other Members who have heightened public awareness of the quality issue. With continued attention, ASA believes solutions can be found, and exports thereby enhanced -- an outcome that is in the interest of farmers, exporters and every American.

STATEMENT OF WILLIAM J. COTTER, GRAIN GRADES AND WEIGHTS COMMITTEE,
NATIONAL GRAIN AND FEED ASSOCIATION

Mr. Chairman and members of the subcommittee, the National Grain and Feed Association is pleased to participate in this hearing on a subject that is important to all sectors of agriculture, as well as to the well-being of this nation as a whole. We welcome this opportunity to provide Congress with a progress report on changes we believe should be made within the existing regulatory process to facilitate grain quality and enhance the ability of our official standards to more accurately reflect the quality characteristics of grain.

I am Jerry Cotter, director of operations with the Port of Corpus Christi Authority, Corpus Christi, Texas. I appear here today on behalf of the National Grain and Feed Association, on whose Grain Grades and Weights Committee I serve.

The National Grain and Feed Association is a voluntary association of grain and feed firms ranging in size from the smallest country elevator to the largest grain and feed complex. Included in its membership are country and terminal elevators, merchandisers, processors and exporters covering the wide spectrum of the grain and feed industry. The Association's membership is comprised of 1,200 companies and 43 affiliated state and regional grain and feed associations whose membership includes more than 10,000 grain and feed companies nationwide.

As U.S. agriculture struggles to regain its export markets and economic health, grain quality issues are likely to receive public scrutiny. It matters little whether the quality issues that are being aired are real or perceived. When importing nations and other buyers voice concerns over quality, it behooves the conscientious, prudent supplier to respond in a constructive and meaningful way. That, we believe, is what the American grain producer and marketing industry have done, and will continue to do. That's just good business sense. We cannot ignore our customers' desires for a quality product and expect to rebuild volumes in the grain markets we are serving.

Our grain prices are now coming more into line with world market prices, which will dramatically enhance our ability to compete. In this more competitive environment, we believe the quality of our grain will become even more important. And we think the American farmer and the U.S. grain industry can compete quite well on those terms.

Our support of the U.S. Grain Standards Act has a long and well-documented history. The National Grain and Feed Association played a pivotal leadership role in the enactment of the first Grain Standards Act in 1916. It was the grain industry itself that initiated, worked for and recommended the rules for uniform grain standards and inspection procedures so that commerce might be conducted in an orderly and timely manner. We have been actively involved in each revision of the act since that time. Thus, one of our association's reasons for being—the necessity of having a uniform grading and inspection system that accurately and objectively describes the physical properties and quality characteristics of grain—continues to be one of our principal missions.

Today, the National Grain and Feed Association is supporting several important changes that address two of the primary grain quality concerns that have arisen. First, we believe that dockage in wheat should be reported on the official grade certificates to the nearest 0.7 percent. Second, we are urging the Federal Grain Inspection Service to develop and propose a uniform barge loading plan to reduce the variability in moisture and other quality characteristics of grain loaded on barges. In conjunction with the barge loading plan, we support mandatory use of diverter-type samplers or other approved devices capable of obtaining representative samples of the entire barge lot during loading.

We will expand on these and other quality suggestions later. But first, I think it would be beneficial to review briefly the forum we believe should be used to bring these and other changes—both past and future—to fruition.

The Grain Standards Act authorized the U.S. Department of Agriculture to develop regulations implementing the policy of Congress. The policy of Congress, as stated in the Act, includes the following:

"Grain is an essential source of the world's total supply of human food and animal feed and is merchandised in interstate and foreign commerce. It is declared to be the policy of the Congress, for the promotion and protection of such commerce in the interests of producers, merchandisers, warehousemen, processors, and consumers of grain, and the general welfare of the people of the United States, to provide for the establishment of official United States standards for grain, to promote the uniform application thereof by official inspection personnel, to provide for an official inspection system for grain, and to regulate the weighing and the certification

of the weight of grain shipped in interstate or foreign commerce in the manner hereinafter provided; *with the objectives that grain may be marketed in an orderly and timely manner and that trading in grain may be facilitated.*" (emphasis added.)

Section 4 of the Act also states:

"The (FGIS) Administrator is authorized to investigate the handling, weighing, grading and transportation of grain and to fix and establish: (1) *standards of kind, class, quality and condition* for corn, wheat, rye, oats, barley, flaxseed, sorghum, soybeans, mixed grain and such other grains as in his judgment the usages of the trade may warrant and permit. . . ." (emphasis added.)

We believe the wisdom exercised by Congress in delegating to USDA the responsibility for developing grain standards through a formal rulemaking process has contributed to the development of foreign and domestic markets and enhanced the trading of grains. We believe the rulemaking process is the proper forum for consideration of complex, technical subjects like grain standards that have multiple ramifications.

One of the fundamental strengths of the U.S. grain standards is that they remain relatively stable and are understood worldwide. The grain standards are not changed radically or precipitously from year to year at the whim of a particular buyer or sector of the agricultural industry or in response to transitory problems, isolated complaints or the peculiarities of a single crop year. The standards recognize that grain is a field crop and a living organism, and that variations in quality are to be expected, not shunned. Thus, grain cannot be described with the precision of a manufactured item.

The continuity and understanding of the grain standards are two of their most essential attributes, and must be preserved. Grades function as a "short-hand" medium of communication between buyers and sellers and as a mutually understood basis of quality. This understanding eliminates a source of risk to either party in a business transaction. That is extremely important to the foreign buyer, who knows the quality characteristics represented by a specific grade of grain. It also is vital to the domestic trading of grain. And, since the grain standards that apply to cash grain also apply to futures contracts, hedgers do not face any additional risks in their hedging decisions because of nonuniformity in grades.

Another strength of the U.S. grading system is that it is capable of providing a uniform method for communicating a mutually understood basis of quality between buyers and sellers. It is in this context that blending of grain is useful in providing a uniform quality demanded by buyers.

While the U.S. grain grading system provides a stable basis for trading commodities, the grain standards also are dynamic and responsive. FGIS is required to conduct a public review of each of the standards every five years. But in reality, the grain standards are examined continually, and rulemaking proposals are considered in response to suggested changes. Further all interested parties—farmers, the grain, feed and processing industries, hedgers and futures traders and foreign buyers—have the chance to participate through the rulemaking process, thereby enabling the standards to better serve their purpose.

There are many reasons why changes might be requested and thoroughly considered in the standards and official grain grading procedures. Among them are: New genotypes with different quality characteristics; newly developed technology to measure quality attributes; unusual or troublesome characteristics caused by weather; changes in grain marketing techniques (including storage, processing and transportation); and increasing/decreasing importance of attributes in determining grain value.

While not inclusive, this listing demonstrates the immense amount of information conveyed in the standards, and the purposes buyers and sellers expect the grain standards to serve.

As an example of the responsiveness of the current system to change, let me cite the alterations to the standards made by FGIS in 1984 alone in response to regulatory review and public comment:

January 27: Standards for mixed grain revised.

May 1: Revised standards for soybeans issued. A new class "soybeans of other colors" replaced the former three classes of green, black and brown. But FGIS dropped its proposal to delete test weight as a grade factor in response to 22 of 37 public comments that opposed such a change.

May 15: The wheat standards were revised. However, again because of overwhelming public comment, FGIS dropped its plans to create a new class called "red wheat."

May 23: The rye standards were revised.

Sept. 1: Official standards for sunflowers were adopted.

Sept. 7: Revised standards for corn were issued.

Sept. 12: FGIS deleted moisture as a grade factor for corn, sorghum and soybeans.

Dec. 20: Revised standards for flaxseed, oats and triticale were adopted.

The National Grain and Feed Association supports the active consideration of changes to the official grain grading procedure and grain standards. It is through continual review and evaluation, that the standards have evolved into the basis for the most dynamic and effective grain marketing system in the world.

One other point needs to be made about the grain standards. Rightfully, they do not address every quality characteristic of grain, but rather are a reference point upon which the buyer or seller of grain can place additional quality demands. The grain standards and FGIS' regulations provide the flexibility necessary for all buyers to obtain the desired quality to meet their needs and for all sellers to obtain a fair price based upon quality factors that exist in the commodity being sold.

However, we recognize that the industry and grain trading system must focus more on the buyers' needs concerning grain attributes and quality. We are supportive of efforts to develop additional tests that may be meaningful to end-users of grain so that FGIS may offer these tests to interested parties so as to provide official—but not grade determining—criteria. In this manner, additional information on grains would be available without burdening the base or reference point on which grain is traded.

Now let me turn to our specific proposals for change. These positions have been developed by our Grain Grades and Weights Committee through a series of meetings over the past few months that have focused solely on grain quality issues.

Dockage Reporting in Wheat.—First, the National Grain and Feed Association recommends that dockage in wheat be reported to the nearest 0.1 percent. Currently, dockage is reported by rounding down the measured level to the nearest one-half percent; for example, 0.6 percent dockage would be reported as 0.5 percent, as would 0.9 percent dockage.

In evaluating this change, we examined alternative procedures for reporting dockage, their impact on the grain handling system and grain marketing, and on foreign buyers' perception of the integrity and accuracy of the official grade certificate. In light of this examination, we believe that a change to reporting dockage to the nearest one-tenth percent will most accurately describe the actual dockage content in wheat. It is our belief that a more accurate description of dockage in wheat will allow the market to determine what kinds of premiums and discounts to apply for different dockage levels. This will largely determine whether the amount of dockage in wheat decreases.

It is our understanding that the Federal Grain Inspection Service will be proposing such a change shortly. We heartily support this rulemaking effort, and will actively participate in support of the proposal.

Uniform Barge Loading Plan and Sampling.—Second, we support and will urge the Federal Grain Inspection Service to develop and institute a rulemaking on a uniform barge loading plan to provide ranges or limits on various quality factors to improve uniformly in grain shipments. FGIS already has in place a mandatory loading plan for ship loading of export grain. We believe a uniform barge loading plan will reduce the variability in moisture and other quality characteristics of grain loaded aboard barges. In conjunction with the barge loading plan, we support the required use of diverter-type samplers or other approved devices capable of obtaining representative samples of the entire container during loading.

Our Association has considered and debated the mandatory use of on-line sampling techniques (such as the diverter-type sampler) for several years. The focus has been on whether use of a diverter sampler should be required to obtain an official certificate, rather than permitting probe-sampled grain to also be eligible for official grades. After considerable evaluation, it is our view that the mandatory use of diverter samplers, in and of itself, would not ensure uniform barge loading. The two must work in tandem.

The resolution of this issue is a major step. We believe it is a necessary first step toward minimizing nonuniformity and conditioning problems of export grain shipments when they arrive at foreign ports. It will provide greater uniformity in moisture levels of barge grain being received for export shipment.

One aspect of this situation that requires further study is that recent research reports have demonstrated a wide variation of moisture content in corn kernels from the same ear or field. Research also is examining to what extent moisture "migrates" from one kernel to another during shipment, thereby reducing moisture differentials.

The National Grain and Feed Association also has participated in the ongoing series of grain quality meetings being conducted by several groups. We took part in

the National Corn Growers' Association's quality meetings in the summer of 1985; and the American Farm Bureau Federation meetings on September 10-12, 1985. We also have been involved extensively in the workshops being conducted under the auspices of the North American Export Grain Association. We believe these workshops, in which I have participated, have provided a broad-based and very useful forum for producers, grain handlers, exporters and others to examine the U.S. grain grading system with a special emphasis on quality.

Much more will be said about these workshops by NAEGA representatives during this hearing. But I would like to briefly summarize the positions taken by the National Grain and Feed Association on various grain quality issues that have arisen during these sessions:

Reporting Protein in Wheat on a Constant-Moisture Basis.—Currently, the amount of protein in wheat is reported on a percentage basis. This percentage varies, depending upon the moisture content of the wheat, even though the actual level of protein remains the same.

We, as well as many other segments of the industry, support a proposal to report protein in wheat on a constant moisture basis of 12 percent. This will enable the grain marketing system to more easily compare different protein levels in different lots of grain.

Reporting Dockage and Foreign Material As One Grade Factor for Wheat.—We do not support a proposal made by some that dockage and foreign material be reported as a single factor to the nearest one-tenth percent. We do not believe this proposal has received the degree of study needed prior to recommending such a change in the grain standards. For instance, no one has conducted an economic feasibility study on the effect combining these two factors might have on the producer. The combination of a greater weight deduction and alteration of the numerical grade could be devastating. In addition, combining dockage and foreign material into a single grade factor is ill-timed because most buyers are demanding more information, not less, about the grain they are purchasing. Providing information on the level of dockage and foreign material separately allows the buyer to know the material that can be machine-removed (dockage) and the material that may not be readily removed and thus might affect wheat products. Further, our earlier-recommended proposal that dockage be reported to the nearest one-tenth percent already may have addressed the perceived problem.

Separating the Broken Corn and Foreign Material Grade in Corn into its Two Components: Broken Corn and Foreign Material.—Currently, the corn standards classify the smaller contents of corn (material passing through a 12/64-inch sieve and non-corn material remaining in the sieve) as one factor—broken corn and foreign material (BCFM). Many buyers believe there is a substantial difference in value between broken corn and foreign material that warrants that the two be measured and classified as two distinct factors. The feasibility and benefits of such a change are being examined and considered.

Review of FGIS Interpretive Line Slides Depicting Damage in Soybeans.—As a result of weather conditions during the past two years, the U.S. soybean crop has included a high level of damaged beans. This has caused concern over the adequacy of the definition (slides) now used by FGIS to determine soybean quality, specifically frost, mold and weather damage. We support a review of the FGIS interpretive line slides for damage in soybeans.

Review of the On-Line Uniform Ship Loading Plan.—The National Grain and Feed Association supports a shiplot and combined lot sampling plan developed by FGIS in the late 1970s that is designed to ensure the uniformity of export grain. This loading plan, commonly known as Cu-Sum, is designed to ensure foreign buyers that the quality of the grain being loaded is consistent throughout the cargo. At the same time, it does not discourage the loading of higher quality grain than specified on the certificate. The on-line sampling plan requires official factors for each lot of grain loaded on export vessels be within specified tolerance levels. These levels provide for the statistical sampling and grading variations known to occur. The Cu-Sum plan is based upon a significant amount of FGIS data on grain shipments and statistically based tolerances.

While supporting the Cu-Sum plan, we believe the review underway by FGIS to reexamine the statistical basis for the plan is prudent.

CONGRESSIONAL LEGISLATION ON GRAIN QUALITY

The National Grain and Feed Association also would like to share its views on some of the legislation introduced in Congress on grain quality.

S. 1121.—Mr. Chairman, we support your legislation. By prohibiting the return of grain dust or grain-related material to the grain stream at export port elevators, except to conform to export contract terms, your bill recognizes the necessity of blending to permit foreign buyers to purchase the quality and uniformity of grain they desire and request. To achieve this uniformity and continuity in grain quality demanded by buyers, grain generally is overcleaned and the just removed grain material reintroduced to the grain at the quality level requested by the buyer.

H.R. 4139.—We oppose this legislation, which would require that the rounding of numbers on grade certificates be in a direction to understate the quality of the grain. This would be counterproductive to the current emphasis of having the certificate state grain quality as accurately as possible, including our position that wheat dockage be reported to the nearest one-tenth percent.

H.R. 3944.—The National Grain and Feed Association opposes this bill, which would require official certificates to state that the certification applies to the total lot of grain and not the sublots therein. This would be counter to the shiplot loading (Cu-Sum) plan that assures uniformity between sublots in a vessel.

H.R. 3955.—This legislation would provide in-kind bonuses to be paid to producers and exporters who sell or deliver corn grading U.S. No. 1 or U.S. No. 2. We recognize that many questions remain with the implementation of bonus systems based upon quality, but support the concept of providing incentives for increasing export volumes and improving export grain quality.

The National Grain and Feed Association also wishes to share its positions on several grain quality-related bills that were adopted as part of the Food Security Act of 1985:

Grain Quality Study.—We were a primary proponent of the wide-ranging study on export grain quality and grain handling practices now being conducted by the Office of Technology Assessment.

Development of New Methods for Grading Grain.—The National Grain and Feed Association supported the provision that FGIS and the Agricultural Research Service develop new methods for objectively grading grain based upon its physical characteristics and properties rather than visual appearance. However, we caution against adopting new methods prior to comprehensive evaluation and testing.

Requiring Moisture to Remain as a Grade Factor.—We opposed an amendment that would have required that moisture remain a criterion in the official grades if requested by the importing country. Foreign buyers already have the right to specify precise moisture levels as part of the contract terms. Developing different standards for different countries would lead to confusion and destroy the value of uniformity that makes the U.S. standards consistent for all buyers.

The following are the National Grain and Feed Association's positions on several grain quality provisions that were not adopted as part of the Food Security Act of 1985:

Prohibition Against Returning Grain-Related Material to the Stream.—As mentioned earlier, we opposed legislation that would have prohibited the return of grain-related material to the grain stream, once removed, regardless of contract terms.

Prohibition on Blending of Grain with a Moisture Differential Exceeding 4 Percent.—Because of the naturally occurring variations in moisture content among kernels, we opposed this provision as being unrealistic and unenforceable. Additional information on the moisture variability throughout the grain marketing chain may be very helpful in understanding and preventing grain storage and transportation problems. However, instituting an arbitrary, unenforceable blending limit would not serve to improve grain quality. Further, we already are addressing the variation in moisture uniformity by supporting development of uniform barge loading plans in conjunction with grain sampling techniques. In addition, we will lend every effort to educate and encourage our members to minimize moisture differentials in their blending operations.

CONCLUSION

The National Grain and Feed Association pledges to continue its efforts to evaluate and encourage the development of grain standards, inspection procedures and grain handling practices to maintain and improve grain quality. We believe the changes we have proposed in this testimony represent a major effort to address grain quality issues in a constructive and meaningful way that will benefit all sectors of U.S. agriculture.

STATEMENT OF MYRON R. LASERSON, PRESIDENT, NORTH AMERICAN EXPORT GRAIN ASSOCIATION

My name is Myron R. Laserson. I am executive vice president of the World Grain Division of the Continental Grain Co. and president of the North American Export Grain Association.

The North American Export Grain Association sincerely appreciates the invitation to appear before this subcommittee to address the subject of S. 1121, a bill to encourage foreign agricultural trade. Our organization consists of 33 member companies which, collectively, account for more than 90 percent of all grain leaving the United States. We are well aware of the public criticisms, particularly during the past 8 to 12 months decrying the quality of U.S. grain received by overseas buyers.

We acknowledge that some quality problems have occurred, primarily in corn and soybeans, as a result of adverse weather conditions in 1984 and 1985. We submit, however, that the quality problems have been grossly exaggerated and are not the major reasons for the decline in our grain exports.

While not the subject of this hearing, please consider the effects of (1) the world glut of excess grain, (2) subsidies by our competitors which have priced their wheat as much as \$40 a ton lower than ours, (3) the inability of some countries to pay for grain without extended credit, and (4) the unfair export BICEP program which, by a stroke of the pen, eliminated one of our largest consistent wheat buyers—the USSR.

The most frequent criticism heard concerning our grain quality has been the "dirtiness", particularly of wheat. Senate Bill 1121 addresses this issue by disallowing the reintroduction of "dust and grain-related material to the export cargo except to conform to export contract terms."

We completely endorse this suggested amendment as it is fully consistent with existing proper elevator practice. But to ensure cargo uniformity and to allow the buyer of our grain to choose whatever grade suits his needs, the blending back of previously removed grain dust and/or grain-related material such as screening is necessary from time to time at the export location.

Mr. Chairman, as exporters we are as anxious as you and as anxious as the American farmers to reverse the trend of our export sales. We are ready to face the necessity of accepting the cosmetics of improving our grain standards. This is a different issue than elevator practice, and any change in standards will apply throughout the system . . . from the farm to the port.

Our association has taken the leadership in establishing a series of workshops to determine what changes in grade standards are desirable. All segments of the agricultural community, including the FGIS, will be heard in these workshops, and the conclusions will be available in early June.

An example of the kind of change contemplated is the rounding-down procedure now used for quantifying dockage on the grade certificate for wheat. Proposals are now being considered to report this discountable fraction to the nearest 0.1 percent, which should more accurately tell the buyer the true content. Whether the buyer will choose to demand that this dockage be removed or merely opt for a larger discount is a choice that should be his to make.

We should emphasize that this dockage does not originate nor is it added to wheat at the export elevator.

The Department of Agricultural Economics at the University of Illinois published an analysis of dockage levels only last December. Some 60,700 samples of inbound trucks and submitted samples at interior markets were compared with 2,687 shiploading samples for dockage. The interior samples showed a mean dockage content for all classes of wheat at 0.97 percent, while the export samples revealed a mean content of only 0.71 percent.

The export cargoes were actually cleaner by $\frac{1}{4}$ of 1 percent. This suggests that dockage originates at the producer level, not in grain handling system. I repeat . . . any change in grade standards will affect the whole system.

For soybeans and corn, the foreign material (FM) or broken corn/foreign material (BCFM) is a grade determining factor and is specified in the export contract. Our shiploading procedure—which is intended to assure uniformity of the cargo—is rigidly controlled by FGIS on a sub-lot by sub-lot basis.

As Senate Bill 1121 contemplates, loading practice now conforms to export contract terms. For example, if 2.0 percent maximum foreign material is specified for soybeans, the analysis and certificate must be 2.0 percent or less. If BCFM in corn is specified as No. 3 U.S. Yellow Corn, the level cannot exceed 4.0 percent, which is established for that grade.

We must emphasize that better grades with less BCFM or FM are always available at a premium, but nearly all buyers choose the cheaper priced quality. A few

soybean buyers have recently purchased No. 2 Soybeans, but they have specified 1.8 percent maximum FM rather than the 2.0 percent allowed by the No. 2 grade.

We must also emphasize that segregation within the hold of a vessel and discharging and sampling techniques at destination will result in different dockage, FM or BCFM values. FGIS certificates are well known and are highly regarded as the grade at time of loading, not guaranteed at discharge 30 to 60 days later.

In closing, we wish to thank you again for the opportunity to express our support of this bill and the support of every effort to increase U.S. grain exports.

STATEMENT OF JOHN C. DATT, EXECUTIVE DIRECTOR, AMERICAN FARM BUREAU
FEDERATION

The American Farm Bureau Federation (AFBF), representing over a million member families in 49 states and Puerto Rico, is virtually interested in efforts to upgrade the quality of grain marketed by producers and exporters.

Voting delegates at AFBF's Annual Meeting adopted the following policy pertaining to grain standards and pricing:

"We support strengthening and enforcing federal standards that will reflect the quality of grain sold in world trade. We propose that USDA . . . conduct a comprehensive study to identify the changes in grading procedures and standards needed to insure that class and grade will accurately indicate the appropriate end use for each lot of grain. . . . We strongly support development of new, more realistic grain standards to improve the present U.S. Grain Standards Act. Revised grain standards should indicate clearly and give assurance that we will provide clean, identity preserved grains for our customers at home and abroad. . . . The objective of improving grain standards must be to enhance sales and improve returns to producers. New standards should be developed soon and should be strictly enforced. We believe the Farm Bureau, USDA and the grain trade should work cooperatively to improve grain standards which accurately reflect the importance of test weight, protein content, insect infestation levels, moisture, dry matter basis and foreign material in determining quality, grading and pricing factors for soybeans, wheat and feed grains. . . . The practice of adding foreign material, other grains, screenings . . . to a shipment of wheat (or other grains) to meet a certain grade should be prohibited."

Issues related to grain quality have been of concern to producers for many years. However, only in the last year or two has it been possible to establish meaningful dialogue among the various groups within the grain industry. The current cooperative efforts have been prompted by an awareness that at least a part of the export market the United States has lost in recent years is due to our failure to provide a commodity as good or better than that offered by competing export countries.

In September 1985, AFBF hosted a national meeting of producers, including all of the major grain commodity organizations, grain elevator operators, processors and millers, exporters, importers, USDA and state university grain marketing specialists to discuss issues related to grain standards marketing practices and ways in which the quality of both domestic and export grain might be improved. We also explored the economic feasibility of making changes—both in terms of the cost of changes and the economic rewards. Although few definitive answers were forthcoming from the three-day session, the participants arrived at two conclusions:

- (1) that many of the problems delineated were complex in nature, requiring comprehensive review and study before satisfactory solutions can be developed; and,
- (2) that those in attendance pledged to resolve their differences and work together for changes that will upgrade the quality of grain.

One of the results of the conference was the development of a series of two day Grain Quality Workshops, which began in January. Four of them have now been held. The original objective of this Ad Hoc group was to complete our efforts by the end of May. However, the complex and perplexing nature of the issues involved cannot be satisfactorily resolved without additional time and effort which will delay completion until June.

As a result, the American Farm Bureau cannot give full support to S. 1121 at this time, although we are sympathetic with the objectives of the legislation. Many questions remain unanswered, however. For example, would an export elevator that cleans a bin of corn grading U.S. No. 3 because he needs the grain to fill an order for U.S. No. 2 corn, be in violation of the intent of S. 1121 if he added back part of the screenings? What are the implications for pricing grain at the local country elevator as a result of this legislation? Would it be a more reasonable approach to reduce the tolerance levels for foreign materials?

Farm Bureau expects to have appropriate answers to these questions, and many others, which will provide reasonable and effective solutions in the next two or three months. We will look forward to sharing them with you at that time.

99TH CONGRESS
1ST SESSION

S. 1121

To amend the United States Grain Standards Act to encourage foreign agricultural trade by improving the quality of grain shipped from United States export elevator facilities.

IN THE SENATE OF THE UNITED STATES

MAY 10 (legislative day, APRIL 15), 1985

Mr. ANDREWS introduced the following bill; which was read twice and referred to the Committee on Agricultural, Nutrition, and Forestry

A BILL

To amend the United States Grain Standards Act to encourage foreign agricultural trade by improving the quality of grain shipped from United States export elevator facilities.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That section 13 of the United States Grain Standards Act, as
4 amended (7 U.S.C. 71-87H), is amended by renumbering
5 present paragraph (c) as (d) and by inserting the following
6 paragraph:

7 “(c) No person who owns or operates an export elevator
8 at an export port location shall permit the elevator to know-
9 ingly add to any grain shipped from the elevator any grain

1 dust or grain related material that has been removed from the
2 grain by the elevator except to conform to export contract
3 terms. An export elevator shall not knowingly add any non-
4 grain material to grain shipped from the elevator: *Provided,*
5 That grain may be treated to suppress dust and to destroy or
6 prevent insects and fungi injurious to stored grain.”.

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, DC, April 23, 1986.

Hon. JESSE A. HELMS,
Chairman, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: This is in response to your request for the Department's comments on S. 1121, a bill "To amend the United States Grain Standards Act to encourage foreign agricultural trade by improving the quality of grain shipped from United States export elevator facilities."

This Department recommends that the bill be enacted, if amended to delete the phrase, "except to conform to export contract terms", and to broaden the proviso to permit the dyeing of grain.

The bill provides that: "No person who owns or operates an export elevator at an export port location shall permit the elevator to knowingly add to any grain shipped from the elevator any grain dust or grain related material that has been removed from the grain by the elevator except to conform to export contract terms. An export elevator shall not knowingly add any nongrain material to grain shipped from the elevator: Provided, that grain may be treated to suppress dust and to destroy or prevent insects and fungi injurious to stored grain."

The Department has supported and will continue to support legislation which seeks to improve the quality of United States export grain. While we believe that the objective of the bill is to improve the overall quality of export grain, we do not think the bill, in its present form, will accomplish this objective. The bill includes an exception that permits the addition of grain dust or grain related material to conform to export contract terms and is so broad that it could include practices contrary to the objective of the bill. Additionally, the bill's proviso would permit the addition of nongrain material to suppress dust and to destroy or prevent insects and fungi. It would not permit the dyeing of grain for identification purposes, as is current industry practice. Accordingly, the Department would support the bill if this exception were deleted and the proviso broadened.

Congress, in section 1673 of the Food Security Act of 1985, Pub. L. 99-198, commissioned a study of the United States grain export quality standards and grain handling practices. The study is to be conducted by the Office of Technology Assessment, in consultation with the Secretary of Agriculture and will address the issue proposed by the bill. The results of the study are to be submitted to the Congress no later than December 1, 1986.

Other than the minimal costs incurred for processing violations, there would be no additional cost to the Department to detect flagrant violations that occurred while an elevator was shipping grain that was being officially weighed and inspected under the Act. Current monitoring practices by Federal and State employees at export port elevators would provide the necessary manpower for monitoring purposes. To monitor all grain handling and storage activities at export port elevators on a continuing basis would require one staff year per shift at each of the 73 export elevators, at an estimated annual cost of \$2.0 million. This cost projection is based on the current level of operations of the elevators at this time.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD E. LYNCH.